

INTRODUCTION TO THE THEORY AND PRACTICE OF MIDWIFERY: COMPREHENDING

The most effectual means of attaining true Principles of that Science; with Animadversions on the Qualification and Deportment of an Accoucheur.

TO WHICH ARE ADDED,
A DESCRIPTION OF THE AUTHOR'S NEW FORCEPS,
Illustrated with elegant COPPER PLATES.

ALSO A
SYLLABUS OF OBSTETRIC LECTURES

PUBLICLY DELIVERED AT
His THEATRE, in CRAVEN-STREET, LONDON.

By JOHN LEAKE, M.D.

Member of the Royal College of Physicians, and Physician
to the WESTMINSTER LYING-IN-HOSPITAL.

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A

L E C T U R E,

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THEORY and PRACTICE of MIDWIFERY:

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By A L P H O N S E L E R O Y,

Doctor Regent of the Faculty of Physic in Paris, and Professor of Midwifery, &c.

(Translated from the French.)

By L E W I S P O I G N A N D, Surgeon.



Monsieur Monsieur *John Leake*, docteur en médecine, membre de Collège Royal des Medicins de Londres, &c. .

MAXIMA cum voluptate et non sine fructu, Vir illustrissime et ornatissime, tuum legi et relegi librum, cui titulus est: *Practical Observations on the Child-bed Fever, printed London 1772.* In illo enim reperi animadversiones curiosas et plane novas de affectibus omenti, disquisitiones nitidas et sagaces de curatione febris puerperium insequentis, dubitationes quas dictarunt prudentia et moderatio contra sistema nostri Celeberrimi *Levret*, cogitationes accuratas de hæmorrhagiis ante et post partum. Quid magis? In toto judicium et scientia veri bonique medici refulget, his itaque perpensis, seu ægrorum salutem, seu artis medicæ incrementum prospiciam, tuum librum cunctis gratissimum duxi; qua propter ut melius innotescat, hunc in idioma gallicum converto, jam ferme absoluta est interpretatio; et paucos intra menses, si tibi libet, prelo publico poterit in Franciâ committi.

Mihi familiaris et colendus amicus habet nunc sub prelo tractatum idiomate Gallico scriptum de hæmorrhagiis uterinis. Plurimis abhinc mensibus auctori communicaveram versionem tuæ sectionis *Væ. Of the nature and cause of uterine hemorrhages, and their treatment, &c.* in hoc novo tractatu mei amici,

amici, multa sunt de te excerpta cum laude tui ingenii et tui operis.

Auctor novi tractatus, post expositionem variarum methodorum contra hæmorrhagias uteri, nil efficacius inveniit quam obturatio vaginæ Linteolis vel siccis, vel imbutis aceto, sed profunde immis. Hæc methodus olim vetustissimis nota, in oblivione quodam modo jacebat; sed nunc resurgit longâ et felici experientiâ stabilita; et enim introduc. linteorum in vaginâ, dum sanguinis fluxum, juvat quoque formationem coaguli; interim, uterus novas acquirit vires; sese conglomerat et constringit, contractionibusque propellet coagulatum sanguinem et linteola immissa; sed ut obturamentum vaginæ sit semper faustum, plurimæ sunt adhibendæ cautions; scilicet, mollis compressio uteri cum manu, applicatio supra pubem linteorum aquâ frigidâ, aut forsan melius aceto madidorum, usus aeris frigidi, et, ut uno dicam verbo, quidquid potest juvare uteri contractiones et vasorum sanguinem fundentium clausuram.

Celeberrimus *Hoffman*, *Cornelius Trioen*, multi-que alii jam indicarant obturamentum vaginæ contra hæmorrhagias uteri; hæc methodus tibi, Vir clarissime non erat ignota; attamen in praxi vix erat explorata. In curriculo mensis proximi, ut opinor, novus tractatus mei amici evulgabitur; et in

in illo videre poteris ferme omnia quæ scripsisti
de opio, medicamentis astringentibus, venæ sectione, &c.

Vale, Vir clarissime; et quanquam sim extra-
neus, et nullo modo tibi notus, non dedigneris,
quæso, meam sinceram admirationem.

FRANCISCUS CHAUSSIER.

Datum Divione die 21, 7bris. 1775.

Chirurgiae magister in urbe Divionensi apud
Burgundos, acad. reg. chirurgiae Parisiensis cor-
respondens, &c.

P. S. Si velis mihi responsum dare, subjungo
inscriptionem epistolae in idiomate gallico.

MONSIEUR,

JE vous prie d'accepter un exemplaire de l'ou-
vrage que je publie en faveur de l'operation
nouvelle de la section de la Simphise que j'ai de-
terminé, et à la quelle j'ai coopéré. J'y joins le
recit de la Faculté de Medecine de Paris, et un
thèse qui dêtre soutenue dans nos Ecolles, la quel-
le adopte mes principes et offre six examples de
succés. J'enseigne les accouchemens, &c. Je
suis le premier medecin de notre faculté qui se soit
aussi décidément livré à cette partie de la medecine
qui est en France aux mains des chirurgiens. Je
connois vois travaux sur les fievres à la suite des
couches;

couches ; j'établis vos principes et je me plais à vanter vos talens. J'ai donné un Histoire des principaux Accoucheurs, *Smellie* et *vous*, Monsieur, y occupé un rang distingué. Recevez mon Opuscule comme un hommage que je me plais à rendre à votre célébrité. J'ai mandé à mon libraire de me faire parvenir tous vos ouvrages, je compte en faire bon usage pour un traité d'Accouchemens, que je vais publier et dans lequel j'aurai un grand nombre de fois occasion de publier avec quels sentimens d'estime respectueuse j'ai l'honneur d'être,

MONSIEUR,

Votre très humble et très obeissant serviteur,

ALPHONSE LE ROY.

Doctor Regent de la Faculté de Medecine de Mai le 15, 1778. Paris, Professeur d'Accouchemens et de Maladies de Femmes.

M. LEAKE, Professeur d'Accouchemens.

TRANSLATION.

SIR,

INTREAT your acceptance of my publication on the *new operation of cutting the symphysis pubis*, which I have successfully performed. I likewise inclose a report of the Medi-

cal

cal Faculty at *Paris*, and a *Thesis*, which has lately been discussed in our College, wherein my principles are adopted; together with *six examples* of the success of this operation. I give *Lectures in Midwifery, &c.* and am the first in our faculty who has so devoted himself to this branch of physic, which in France belongs to surgery. I am acquainted with your *Practical Observations, &c.* on the *Child-bed Fever*. I adopt your principles, and take pleasure in praising your Talents. I have given a History of the principal *Accoucheurs*, wherein *Smellie* and you, Sir, hold a distinguished rank. I present you with a sketch of my work, as a tribute which I owe to your eminent reputation, and have given orders to my bookseller, to send me all your works, of which I intend to make a proper use towards a *Treatise I am going to publish on Midwifery*, wherein I shall have frequent occasion to testify the respectful esteem with which,

SIR,

I have the honour to be,

Your most humble,

And most obedient Servant,

ALPHONSE LE ROY, M. D. &c.

May 5, 1778.

M. LEAKE, Professor of Midwifery, &c.

A

V I E W

OF THE

RISE, PROGRESS, AND PRESENT STATE

OF

M I D W I F E R Y,

OR

O B S T E T R I C A R T, &c.

MIDWIFERY, the subject of our present consideration, constitutes a Science, on the due exercise of which, depends the preservation of WOMAN—that amiable part of creation, from whom we derive our Being and greatest happiness.

To afford the Reader a general idea of its Rise, Progress, and public Utility; to place
B it

it on a more extensive and respectable view, than has hitherto been done; and to shew the most effectual means of acquiring its true Principles, is the design of the following pages; which may be look'd upon as the *abridgement* of a LECTURE, I had the honor publicly to deliver a few years ago, introductory to the Theory and Practice of the *Obstetric Art*.

The earliest accounts of MIDWIFERY we are able to obtain, inform us, that, like other arts, it originated from necessity; and therefore, is so extremely ancient, that it seems to have sprung up with the first race of mankind; for, notwithstanding the human body, in its original state, came perfectly formed from the hand of the Creator, with all its parts wonderfully adapted to perform their several functions; and although its strength and vigor was then less impaired by intemperance or disease; yet, Nature in the production of our species, not being always able to support and maintain her own laws; the difficulties to women in Travail were nearly the same in the first ages as at present,

present, and consequently, stood in need of the like assistance.

That which principally ennobles the liberal Arts and Sciences, is the dignity of their object, and public utility arising from them; hence, **MIDWIFERY** will be found superior to all others; inasmuch as most of them are only subservient to the conveniences of life, but on this art, immediately depends the *preservation of life itself*, even in a twofold capacity. Hence the poetical invocation of the ancients:

“Phœbe fave; laus magnatibi tribuetur, in uno
Corpo servato, restituisse duos.” TIBULL.

The Science of MIDWIFERY has, indeed, been often degraded by the ignorance and unworthiness of many who practised it; and some of the medical profession are to be found, who, with more vanity than solid sense, superciliously overlook its advantages, and think it below their affected dignity to exercise a manual art, or save the life of their fellow creature, otherwise, than by direct-

ing medicines, or feeling the pulse ;—means too often vague and ineffectual, without the interposition and aid of Nature herself. But it ought to be remember'd, that among the ancients, the *Practice of Physic and Surgery were united*; and that learned men in all ages, not only studied Midwifery themselves, but recommended it to the attention of others, as a *curious branch of natural philosophy*, which will afford the highest entertainment and instruction to contemplative minds. It is not, indeed, necessary that a physician should practise Midwifery ; but if totally unacquainted with its Principles, he is less entitled to that appellation, which implies a general and extensive knowledge in every branch of the healing art.—How, otherwise, can he have clear, and distinct ideas of those complicated diseases peculiar to Women, arising from *irregularities of the periodical discharge* ; or of *puerperal Fever, Uterine Hæmorrhages, &c.* ?

Among the ancients, that venerable parent of physic, *Hippocrates*, not less illustrious for social virtue than his profound know-
ledge

ledge of philosophy, wrote several books professedly on Midwifery, and Diseases incident to women: *Aristotle*, likewise, Tutor to *Alexander the Great*, and by his order amply supplied with whatever the known world could afford relative to natural history and the generation of animals, did not disdain to write on the same subject; nor did *Avicenna*, who was a physician and an Arabian Prince.

Of the moderns, the celebrated *Harvey*, who discovered the circulation of blood, and was physician to King *Charles the first*, discourses largely on generation and child-birth; and *Ruyfch*, that laborious investigator and promoter of anatomical knowledge, not only practised Midwifery, but was appointed Professor of that art by the States of Holland. The learned *Astruc*, royal Professor of physic at Paris, and Physician to the French King, gave public Lectures on the OBSTETRIC ART; also *Albinus*, an illustrious Professor of Anatomy and Surgery in the University of Leiden. And lastly, the late Dr. *Hunter*, Physician to the

Queen, by whose incessant labours, anatomical knowledge has been so much improved, practised Midwifery many years, and published his Anatomical Tables of the Gravid Uterus, to illustrate that science.

Daily experience affords ample testimony of the great utility of this art, whether it regards the immediate preservation of individuals in pregnant women, or extends its influence to the good of society in general. In *preternatural Labours*, or profuse *uterine Hæmorrhages*, where nothing but speedy delivery could save the patient's life; the timely and judicious assistance of an *Accoucheur* snatches her, as it were, from the grave, and often preserves her Infant also; he restores to the despairing husband the tender partner of his bosom, and gives consolation to all those who are united to her by the ties of blood and natural affection.

MIDWIFERY likewise principally constitutes and illustrates the *Medicina forensis*, or that branch of the Science contributing to the public administration of justice, in what relates

lates to *virginity*, *pregnancy*, and the *natural period of uterine gestation*; as well as to form judgment, whether unlawful means had been used to occasion *abortion* *. It likewise directs us to the properest methods of discovering whether the Infant was still-born, or *destroyed after birth*. Besides those cases, in which the decision of an *Accoucheur* has no inconsiderable share, are many other important points which could not be satisfactorily cleared up, or properly determined without his interposition; and therefore, the verdict of Juries, respecting the *legitimacy of children*, *indictments for rapes*, or *actions to obtain divorce*, are chiefly guided by his report.

We are told, when women under sentence of death plead *pregnancy*, execution is ordered to be delayed; and that this matter is decided by a *jury of matrons*; but, did not the law expressly thus command;
those

* To the disgrace of legislative power, this heinous trespass in the great *Law of Nature* is frequent in the Metropolis, and Empericks, with impunity, are suffered to signify, by public advertisements, where women may apply for that atrocious purpose.

those Judges, who would admit of such incompetent juries, ought to be deemed matrons as well as they.

In a word, if it is of consequence to prove the *legitimacy of children*, and to prevent spurious issue from inheriting the property of a lawful heir; if it is of importance to *acquit the innocent, and punish the guilty*, in the most horrid and unnatural of all crimes, that of *child-murder*; the public utility, and private advantage of that science, on which such determinations chiefly depend, must surely then become obvious and self-evident.

The Creator's wisdom is not more conspicuous in the great, and original work of Creation itself, than those means by which succeeding generations spring up and people the world; and if the inanimate bodies of shells, fossils, and other concretes, or the more beautiful and organized parts of matter in the vegetable system, so often engage the curious; surely, the *Obstetric Art* would afford them entertainment much more rational

tional and interesting. It comprehends the natural history and physiology of the human body, and gives us an idea of its original structure, its progress and termination. The nature of our ideas or mental faculties are also illustrated by this art; the organs of sense being the first inlets to all our perceptions, which vary in their effect, according to the perfect modification of those parts, and the due performance of their several functions. It would, indeed, be impossible to discover, by the nicest anatomical researches, that exquisite peculiarity of structure in the brain, which constitutes the difference between the ideot and man of sound intellect; yet, as every effect implies an existing cause, such dissimilarity may be reasonably inferred; for it would be unphilosophical to suppose an essential difference in the nature of the intellect or Soul itself.

No science leads us so immediately to a survey of our own origin as this; it presents to our view the rudiments of the *Foetus*, and shews how they gradually unfold themselves
in

in magnitude, and figure, from conception to the time of birth : Thus we may observe,

“ *How the dim speck of entity began
To extend its recent form and stretch to man.* ”

GARTH.

Here it may also be remarked, how the causes of things remain inactive, till they are excited into motion by other subordinate causes ; for the *primordia* of the human body, like the *stamina* of plants in their seed, lie dormant and concealed in the female *ovum*, till they are supplied with a vital principle, and rendered prolific by the subtle *aura genitalis* of the male. The philosopher and physiologist may then trace with wonder, the revolutions of matter in the human *Embryo*, divesting itself by degrees of its inert qualities, till by a new modification of parts, it becomes an organized body, and *vegetates into life* : 'Tis now supplied with pipes and strainers fit to convey its juices, but having yet only circulation without sensation, it resembles the growth of vegetables, and, like a parasite plant,

plant, germinates and strikes root in the womb.

Hence, the *Embryo* may be considered as an organized body which advances to maturity by slow and insensible degrees: At first it admits the circulation of fluids through its delicate vascular system, and soon as it becomes *Irritable*; the *punctum sanguineum saliens*, the *primum vivens* and *ultimum moriens*, so beautifully described by the immortal *Harvey*, sets the animal machine agoing; and it appears highly probable, as I have elsewhere observed, that this extraordinary property residing in matter, called **IRRITABILITY**, is the first instrument which Nature employs towards the production of animal life *.

In

* By Irritability is meant that property of the animal fibre, which, on being pricked or stimulated, has a power to contract, although the animal is dead; for the heart may be excited into motion, even after the head has been cut off. Hence Irritability is not only independant of Sensibility and Circulation, but even of the Soul itself; since it is found to exist, after the Brain, the seat of that spiritual something, has been destroyed or taken away.

Vide Med. Instruct. Vol. I. page 227, and Seq.

In process of time, the diminutive being is endowed with *life, motion, and sensation*; and at last, when arrived at its utmost period of perfection in the adult, becomes possessed of those sublime mental faculties which do honor to human nature. Such once were *Newton*, and *Descartes*, and of such humble materials may other *Alexanders* and *Cæsars* be made, under the forming hand of the Almighty Architect!

The solids of a fœtus, even its very bones were once in a fluid state, and void of all sensation, being derived from the *ingesta*, or common elements of matter taken into the mother's body for nourishment. Aliment becomes *Chyle*, of *Chyle* is made *blood*, and that vital fluid is converted into solids; so that by a real *transubstantiation*, we begin to “*exist on many thousand grains that issue out of dust*”; but how and when the mystical union of intellect with matter is effected, must ever remain a secret to us, and can only be known to the Divine Author of our being.

’Tis

'Tis presumed the existance of animal bodies cannot commence without the agency of an immaterial principle ; but it should be observed, that the concurrence of material physical causes are also necessary ; for the vital principle in the *ova* of birds, would lie dormant for ever, was it not excited into motion by the application and energy of heat *. It may also be remarked, that the faculties of the mind enlarge as the corporeal organs advance in perfection, from infancy to manhood, and then gradually decline, as the body tends to decay, in old age.

During this tedious progression of animal life, from the first dawning of a living principle to the last extreme of age ; physiologists have supposed there must have been an entire transmutation or total change of body, so as to leave no idea of *personal Identity* ; and therefore the celebrated Mr. *Lock* places

* *Natura in animali omnino animal est. Ipsa fabricat Calces, Dentes, Cornua, ad vitam tuendam : itaque ijs et utitur, & scit quo sit utendum modo, fine obiecto aut Phantasia ulla.*

places it in *Consciousness* only. But although the adventitious substance of the body, derived from aliment for its nourishment, should be many times changed, its *original stamina* must remain identically the same.

The ways of Providence are past finding out ; yet these very perplexities with which we meet in the pursuit of knowledge may afford some advantage. They will abate that extravagance of vanity and self-sufficiency so natural to the mind of man. They will teach him diffidence and humility, by shewing him many things of which he is either doubtful or totally ignorant,

The learned Dr. *Bentley*, in his confutation of atheism, has clearly shewn, that the *force of Gravity*, however it may influence the larger masses of matter, is utterly insufficient to account for the *formation of animal bodies*. The science under consideration is not less eminently serviceable in the cause of religion, by demonstrating the wisdom of God in the admirable structure of

of their several organical parts ; as well as in affording experimental facts which *refute the doctrine of æquivocal Generation*, that great barrier and subterfuge of the atheistical sect of Philosophers, who concluded, according to their principles, that if *Crocodiles* and other animals were produced by putrefaction, in the banks of the *Nile* ; that men also, like so many animal plants, might originally spring up by chance from the prolific mud of their mother earth, to the total exclusion of divine agency.

This pernicious notion which prevailed for many centuries, was at last opposed by *Redi*, a celebrated naturalist of Florence, who by various curious experiments, incontestably proved, that the concurrence of both sexes is essentially necessary towards the production of the smallest as well as largest animals ; and that those putrid substances, supposed to have generated insects, only afford them a proper *nidus* or hatching-place, but never produce them by spontaneous formation.

It must, indeed, be confessed that some particular animals are produced in a manner very singular and anomalous. A *Polypus* cut into several parts will generate so many perfect and distinct *Polypi*. How strangely different then may be the effect of the same cause, in animals of different species, since that division which destroys animal bodies in general, tends to generate and multiply that of a *Polypus*?

This extraordinary creature may be considered as an intermediate link connecting the different orders of animal and vegetable bodies; for the sensitive faculty of the first, may be perceived to descend gradually in the scale of animal beings, till it dwindles into the inanimate growth of plants. As nature insensibly drops the animal process, she begins to play the wanton, and transgress her own laws: Thus *Snails* and *Earth-worms*, according to *Swammerdam*, are all of the hermaphrodite kind, and whilst they impregnate are reciprocally impregnated; and that uncommon reptile the *Surinam toad* does not produce its young

young from the interior parts of its body, like other animals, but from certain cups or sockets upon its back.

The *Abbe Spallanzani*, an Italian, as well as *Reaumer* have observed, that this property is not peculiar to the *Polypus*; for, they have discovered that *Earth-worms* cut in pieces, and some other animals, are endowed with the same faculty of *reproduction*, which I have had the satisfaction to confirm, in the first, by some experiments which came under my own observation. The same author asserts, that the heads of *Land-snails*, and legs of *young Frogs* are *reproduced* in the like wonderful manner; and farther, that upon the most accurate examination, they are found to differ in nothing from those parts in their original state. In such strange deviations from the stated Law of Nature, though our senses give evidence, we can hardly assent to their reality.

'Those extraordinary and well establishe
facts, however, enlarge our ideas, and extend

C the

the limits of natural knowledge, demonstrating, at the same time, the vast activity, and permanent energy of the *vital principle*, which, in *vegetables*, as well as animals, is remarkably prevalent; for trees cut down, or torn up by the roots, after their limbs have been lopt off, still retain their *vegetative principle* in so high a degree, as to throw out vigorous shoots or branches from the trunk apparently dead.

Leffer, in his *Testaceo-theologia* asserts, that the *Balani Marini*, *Rock Muscles* and *Oysters* are not only hermaphrodites, but such as without any manner of concurrence with each other, have within themselves a power to generate and bring forth their kind *. An impregnated female *Aphis*, or *Plant-Louse* can communicate to her offspring the extraordinary power of producing others in succession even to the fifth progeny, without any fresh impregnation; and what is equally astonishing, we are told, that the same species of *Aphis*, which in summer was *viparous*,

* No *Hermaphrodites*, among the insect tribe, have yet been discovered.

viparous, becomes *oviparous* in autumn. It is also wonderful, that the *Coccus* and *Oniscus* no sooner bring forth their young, than they are devoured by them. And lastly, if we descend to vegetables, however strange it may appear, certain it is, the *farina* or seed of the male flower impregnates that of the female, otherwise no fruit would be produced: for *Linnæus* observes the savin tree was fruitful in the Upsal garden, where the male plant grew near it, but in the Clifford garden, where the male was wanting, there was no fruit at all.

But the most extraordinary production in nature of the vegetable tribe, is the *Gramen Parnassi, Flore Albo*; it grows in meadows, and low marshy grounds, and blossoms in July and August. This beautiful flower has a hollow cone in its center, which is surrounded with several upright chives, on the tops of which are placed small crescents or half-moons filled with *Farina*; when this is mature, the chives, by turns, bend themselves like a bow, and discharge the *Farina* or prolific dust from these *crescents* into the

apex or point of the hollow cone, and then return to their former state. I have seen with surprise, several of them, as if endowed with animal instinct, in the very act of discharging their *Farina*.

The rudiments of the *Foetus* having been considered, it is proper to remark, that the œconomy of Nature, in perfecting what she had begun, is no less extraordinary ; whether it regards the vital functions of the womb in nourishing the Infant, or the amazing expulsive force by which it is brought forth. After puberty, the female constitution is so disposed as to prepare a larger quantity of blood than is necessary for the nourishment and immediate subsistence of the woman's body ; and therefore, when she is not with child, it is periodically carried off once a month, lest it should overfill the vessels and incommod her constitution ; but as soon as she becomes pregnant, this vital fluid is then sent to the womb, to nourish the *Fœtus* ;—consequently during nine months' gestation, the *mensæ* are naturally wanting. When the Infant arrives at its utmost

utmost bulk, the *Uterus* can then no longer contain it without danger of bursting; the violent distention of its fibres now creates pain, which puts the whole uterine system into a state of re-action, and from thence the birth is effected; therefore what are called *labor-pains* are only the effect of that contraction, or powerful endeavour of the womb to expel its contents.

From the vascular contexture and peculiar fabric of the *Uterus*, its cavity, which in the unimpregnated state, was little more capacious than that of a large filbert, at last becomes sufficient to contain a Child weighing seven or eight pounds; and what is still more extraordinary, it does not, like a mass of wax or other ductile substance, become thinner in proportion as it is extended, but uniformly preserves its natural thickness from conception to the time of birth; had it been otherwise, Nature would have run counter to her own designs, and instead of bringing the *Foetus* to maturity, the womb must have burst, and the purposes of conception would thereby have been defeated.

After the Child is born, the *circulation* of blood changes, and less being wanted at the *Uterus*, a certain quantity of *chyle*, which before had nourished the *Fætus in utero*, is now sent to the breasts, to supply the new-born Infant with that balmy fluid called *Milk*. Hence it may be observed, how admirably this organ is adapted to answer the important purposes of generation; namely, to allow of vast extension without bursting; secondly, to contract with amazing force in labor, for the exclusion of the Child; and lastly, by means of the same power, gradually to return to its former state.

Immediately after the Infant's birth, its lungs which had remained inactive during nine months' gestation, are blown up with air, and it is scarcely to be imagined, that the cause of what so naturally then happens to every living animal, should in itself be so obscure, that the ablest Physiologists have attempted to account for it in vain; so that it still remains a question, in what manner the act of *Respiration* commences in animals newly brought forth.

Borelli

Borelli and *Boerhaave* ascribe the beginning of respiration to an increased motion of the Infants muscles in the time of labor, and among the rest, those of the intercostals and diaphragm, which are the principal instruments of breathing. But that incomparable Philosopher *Boyle*, as well as *Vesalius*, has experimentally shewn, that puppies cut out of the womb begin to breathe, when exposed to air, in the same manner as if they had been naturally brought forth. Besides, we shall shew in the following LECTURES, that the Fœtus does not usually struggle as generally thought, but is a mere passive body, which advances in the birth as it is acted upon by the vital impulse of the womb, and in itself utterly destitute of all power to facilitate its own exit.

Pitcairn supposes, that air, by its gravity, rushes into the Infant's lungs as into a vacuum ; but if this was true, it would also find entrance into the lungs of a still-born Child ; and that machine which we call a pair of bellows, would be blown up by the same atmospherical

mospherical pressure, which we know is not the case.

Baron *Haller* supposes, that Respiration commences from the Child's endeavour to cry, in consequence of the pain it suffers during Labor; but this is by no means an adequate reason, and very unlike what has usually been advanced by that learned and ingenious author; for, notwithstanding all living animals naturally begin to breathe as soon as brought forth, they do not all make a noise similar to that of crying in the human species; and farther, the act of crying being subsequent to breathing, the first is manifestly the effect and not the cause of the last; for it would be palpably absurd to say, that a Child could either cry, or endeavour so to do, without the previous act of Respiration.

That incomparable Physiologist Dr. *Wbytt*, will not allow, that Respiration arises from causes merely mechanical, and therefore recurs to a *sentient Principle*, which puts certain muscles in motion at particular periods; hence the Infant is born with a natural propensity

pensity or appetite for breathing, similar to its want of meat or drink. He supposes, that in consequence of its struggles in the birth, a larger quantity of blood will be sent to the lungs, which stimulates them into a respiratory motion; but this, like every other reason hitherto advanced, is insufficient to solve the question at first proposed; since it may easily be proved, that the cause of breathing, whatever it may be, is *not originally impressed on the lungs themselves, but on the organs of Respiration.* The air by its gravity cannot press into a pair of bellows, till their sides are pulled asunder, neither can the lungs of a new-born Infant be inflated and begin to play, till they are freed from all pressure by the action of the intercostal muscles, and diaphragm, which raises the sternum and enlarges the cavity of the *Thorax.*

To proceed; when we come to examine parts peculiar to the *Fœtus*, there, the immediate finger and *flat* of the Creator discovers itself in a more wonderful and conspicuous manner; for, the *canalis arteriosus* and *foramen*

ramen ovale are manifestly designed as *diverticula* or devious passages to carry off blood from the heart, and hinder it from rushing upon the impervious vessels of the lungs, which being yet uninflated, and therefore compressed, could not allow of its course that way ; and had it not been for this curious and cunning device of Nature, since the whole mass could not possibly circulate through the pulmonary artery, as in the adult, it would necessarily have regurgitated on the heart and produced a *mortal suffocation*.

When the Child has inspired air, those *devious passages* being useless, are shut up and obliterated, except in *amphibious animals*, where it is necessary they should still remain open ; for, whilst they dive under water, when their lungs must cease to play, the blood could not otherwise then pass through them ; so that such creatures, though deprived of air, still sustain life, and in the same manner as they did *in utero*. This probably may be the reason, why young animals survive longer in the exhausted receiver

ceiver of the Air-Pump, than old ones of the same species ; and also why drowned persons, and those executed, have sometimes been surprizingly restored to life. Hence also the whimsical attempt to render puppies or other young animals *amphibious*, by alternately putting their heads under water and into the common air ; for, in the first case, it is presumed the *canalis arteriosus* remains open to the circulating blood ; and in the last, that its whole mass will flow through the lungs.

The great Dr. *Harvey*, in a Latin epistle to *Riolanus*, proposed the two following questions :

“ *Cur fætus in utero, non respirans aerem usque ad mensem decimum, ob defectum respirationis non suffocatur ?* ”

“ *Quare in utero existens, vel adhuc intra secundinas, nondum exitum adeptus, vitam sine respiratione retinere poterit, quam primum vero aeri semel expositus, nisi respiraverit, vitam retinere non posset ?* ”

Both

Both the above questions will be answered when we come to the LECTURE on the Fœtus ; it is here only necessary to remark, that as animals *in utero* do not exercise the faculty of breathing ; Respiration, under certain circumstances, is not essential to life. But might we trust our reason, or attend to our own feelings, it would be as difficult to conceive that any animal could live without *Respiration*, as without *Circulation* itself ; which shews that the great and wise Author of nature can easily find expedients to accomplish his designs, when human invention is utterly at a loss, and put to confusion.

Several of the preceding phenomena may be rationally accounted for, as we shall endeavour to shew in the *subsequent Lectures* ; whilst others are involved in obscurity and too remote for human comprehension. It would be difficult, for instance, to know, how the strong, elastic, uterine fibres, are overcome by the gradual influx of juices into the tender stamina of the *Embryo*, after conception ; and how the same cause exerts itself,

itself, in the last months of pregnancy, with such amazing power, as not only to be superior to the womb's resistance, but likewise the additional pressure of the abdominal *parietes* in which it is contained.

Here it might be asked, what determines the growth of animals and puts a *ne plus ultra* to their farther enlargement, or, why they do not continue to grow during life? Why are some Plants and Animals only the short-lived beings of a day, whilst others subsist more than an hundred years?* And why are the sensations in some animals so exquisitely acute as almost to occasion pain, but in others so dull and torpid as scarcely to produce feeling equal to that of the unconscious *sensitive plant*?

The utility and extent of Midwifery may still be farther shewn, by applying it to the knowledge

* The *Creeping Ceres* blossoms at night, and dies in the morning, and the *Ephemeris Fly*, although two or three years in hatching under water, when brought forth, scarcely survives a single day. The *Forest Oak* is said to grow one hundred Years, and the *Stag* is supposed to be an animal of extraordinary longevity.

knowledge of particular Diseases. If the *Pathology* of those maladies derived from the parent are ever to be more perfectly understood, it might be expected from the assistance of this art. Those things premised, it may be proper to enquire, whether long protracted *chronic Diseases* do not at last become *hereditary*; and also, whether the placenary vessels are adapted, by their peculiar structure, to absorb the matter or efficient cause of one disease, and to exclude that of another; as may be observed, by analogy, in the nutrition of plants, which, by an inherent, or *elective power*, imbibe juices of very different qualities from the same soil; and what is still more remarkable, the Flower, Fruit and Bark of the same shrub, all vary in smell, and taste, according as they are influenced by the vessels and strainers of those particular parts.

In those diseases manifestly hereditary, viz. *Scrophula*, *Gout*, and *Lues Venerea*; might not the *materies morbi* be subdued and totally extinguished in the human *Embryo*, by enjoining the mother a *medicated Regimen*

Regimen during the time of pregnancy? From some late observations, I have reason to believe it may be effected; and this circumstance deserves the greater attention, as the morbid matter in a more advanced age, might be so intimately mixed and disseminated through the system, as never to be totally exterminated; 'though at particular periods of life, it may either lie dormant or appear with less violence.

“ *The young disease that must subdue at length,*

“ *Grows with our growth, and strengthens with our strength.*”

POPE.

Such therefore is the miserable state of man, that he not only inherits some Diseases before he sees the light, or enjoys the privilege of breathing; but is afterwards subject to many more, which alternately afflict him from the cradle to the grave!

The application of *variolous matter* to pregnant women, who have had the *small Pox*,

Pox, would determine whether the virus was of such a nature as to be absorbed by the vessels of the Fœtus ; and if so, whether this precaution would not afterwards effectually secure the Infant from that destructive Disease. Should such a method be adopted, it would be most proper in the last months of gestation, where the vestiges of the disease might be seen on the skin of the new-born Infant ; or should no such marks appear, the event of the experiment might be certainly known, by inoculating the Child and attending to the subsequent effects. A case mentioned in the Philosophical Transactions, where the variolous matter applied to a Child which had previously received the *infection in utero*, was not sufficient to reproduce the Disease, suggested to me the propriety of this practice ; as well as a short but ingenious essay on the subject by a Gentleman of Glasgow, which accidentally fell into my hands. Hence also it might be necessary to enquire, whether those adults who are said totally to escape the small Pox, have not been thus *previously infected* with it in the time of uterine gestation.

It

It does not appear that this experiment would be attended with danger ; for the mother's habit would not be affected by it ; and it has repeatedly been observed, that Infants escape the danger of this disease in proportion to their tender age ; which probably might have introduced the practice of inoculating them at the breast, when only three weeks or a month old : However, I desire it may be remembered, that this hint is rather proposed for the investigation of the curious, than as a circumstance as yet sufficiently supported by practical facts.

Strange things have been imputed to the *Mother's Imagination* in marking or mutilating her Child in the womb. This extraordinary opinion is ancient as the book of Genesis, and has even been transferred from the human species to the brute creation ; for, we are told in the thirtieth chapter, “ streaked rods were placed before the breeding cattle, to make the young ones speckled.” However unphilosophical and absurd such ideas may appear, they have been adopted by many, even in

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the present enlightened age, who too readily take things for granted on tradition and hear-say, instead of trusting to the testimony of their own sences. Thus *vulgar Errors*, like the distempered offspring of which we are speaking, have been propagated and delivered down from one generation to another. The ignorant and superstitious, in particular, refuse to be convinced, and are offended with such as disturb their extravagant belief, but are wonderfully entertained by those who feed their sickly fancies, with strange examples of marks, *Monsters*, and mutilated forms, to whom they listen with as much avidity, as *Shakespeare's blacksmith* “ with open mouth swallowing a tailor's news.”

It is much to be regretted, that the generality of women are thus inclined to an opinion so unfavorable for themselves; which not only tends to disturb their repose and fill their minds with horror and dreadful apprehension, but is also contrary to experience, sound reason, and the state of the animal œconomy. To suppose that Nature, in the production

production of the Foetus, should thus transgress her own laws, and be put out of her due and regular course by trifling accidental causes, is not only cruelty and disaffection to themselves, but an affront to the wisdom and goodness of the Creator.

A woman's mind, from the delicacy of her frame, and prevalence of her passions, is liable to so many excesses and inordinate motions, that had such causes been productive of marks or monsters, they would certainly have been much more frequent. Besides, it ought to be remarked, that conception does not depend upon the will of the mother, but results from the nature and disposition of the several animal functions, and therefore happens whether her imagination be for or against it: Surely then it would be extremely *irrational to suppose its influence over the Foetus greater than that which prevailed over her own body.*

By the most accurate examination of parts connecting the Child to the womb, there does not appear any continuation of

vessels between one and the other ; for the umbilical vein and arteries proceeding from the first, terminate at the exterior surface of the placenta ; and those vessels which are derived from the uterus, without any communication with the former, enter the cellular substance of the same placenary mass, but proceed no farther.

No anatomist has ever yet been able to demonstrate the existence of nerves in the *umbilical cord*, which is the medium of all intercourse between the Mother and Child. How then can the imagination of the first operate or extend its influence to the last, *without the mediation of nerves*, which are the organs of all sensation ? With as much reason it might be supposed, an impression made on the mother would be *transferred to the infant sucking at her breast*. It has indeed been asserted with reason, that several parts are endowed with sensibility, where no vestige of nerves is to be seen ; but granting that the funis was nervous ; the placenary vessels continued from it, are not supposed at first to adhere to the uterus, when the

tender

tender stamina of the Embryo would be most susceptible of violence or change; and even when an attachment commences, that is only effected by a superficial *contiguity of parts, and not by any continuation of vessels from one to the other*, as already observed. In a word, the umbilical cord, is plainly intended for the *purposes of circulation, not sensation*; and as it springs from the Fœtus, is destitute of nerves, lest the Infant should have suffered pain when that part was divided after its birth,

Thus may anatomical knowledge clearly convince us, that the *Foetus in utero* has a body perfectly distinct from that of its mother, and is not affected by her sensations, which are entirely confined to her own system. Many instances might be brought to prove the one sleeps whilst the other is awake, the one is affected with pain when the other is at perfect ease; and that each has a circulation of blood peculiar to itself. The imagination of the mother can therefore have no power to alter the stamina of the Fœtus, or change the mode of its existence,

ence, either by giving it supernumerary parts, or taking away those already formed. This reasoning is still farther confirmed by the following circumstances; first, because Infants have often been marked where there was no preceding disturbance in the mother's imagination; and secondly, because her imagination has often been violently affected where the Child was free from any such marks or deformities.

History informs us, that *Rizzio*, secretary to *Mary Queen of Scots*, was stabbed in her presence whilst she was pregnant, but notwithstanding the horror from thence impressed upon her mind, she was delivered of a Child, afterwards *James the first*, who had not the least appearance of blood-colored marks or stigmata.

But seeing that marks and monsters do sometimes happen, how are they to be accounted for, or from what causes do they arise? Perhaps from some accidental violence disturbing the tender Embryo, as yet in a gelatinous state; or from a diseased
 stamina,

stamina, where its very rudiments are monstrous and deformed. Sudden frights are observed to occasion abortion, by what *Hoffman* calls *Convulsio Uteri*; and it is probable that the same preternatural pressure, by producing constriction of the uterus, may forcibly act on the Embryo, and by obstructing the juices in its extremities, occasion those parts to wither and drop off for want of circulation.

We are seriously told, marks resembling red currants, cherries, &c. become more red and vivid when those fruits are ripe; to which, if any reply is necessary, it might be answered, that the paleness or florid color of the skin depends on the quantity of blood passing through the vessels on its surface; consequently those marks will always be most apparent, in warm weather, when such fruits are in season. But if Imagination had power to produce colors, as some would weakly suggest; why should not children be marked with green *Gooseberries*, as well as red *Currants*, since it may be presumed

sumed the Mother will as often have longings for one as the other ?

Before we dismiss this subject, it may be necessary to remark, that monstrous Fœtuses are also common in brute animals ; although our pride will not allow them the exercise of those faculties which are supposed the sole cause of such deformities in the human species. In short, a *lusus naturae*, or preternatural conformation of parts, is frequently known to prevail in *Plants as well as Animals*, which shews, that such uncommon appearances in the last arise from mere corporeal agency, or the *perverted laws of motion*, and have nothing to do with imagination or operation of the mind ; a presumption, that, in the first, the cause is precisely the same.

As by Chemistry the texture of natural bodies is unfolded, and their several qualities disclosed ; so the elements of human bodies, and Diseases to which they are subject, are illustrated and explained by the Science of Midwifery ; for it brings us to an intimate

mate acquaintance with the state and condition of Man, even from the *first stamp of his Existence.*

Here it may not be improper to subjoin the following queries, which relate to the *Obstetric Science*, and therefore hereafter will be duly considered.

An locus certus conceptui proprius assignari queat?

An, ab origine monstra sunt, vel causis accidentalibus sic fiunt; & quænam sunt eorum causæ?

An, et qua ratione seminis potestas parentum, affectiones ingenitas mores, robur, formæ similitudinam, staturam reliquos characteres una traducat?

Quænam est causa sexuum differentiae?

*An Foetus omnia viscera, vasa, artus simul habeat; an vero plane mutet formam,
primo*

primo pisciculo, deinde amphibio, postea respiranti proximam?

Quibus experimentis precipue indagari valent foecunditas et sterilitas mulierunt?

An super foetatio potest?

An alatur foetus per os, per umbilicum, an per utrumque?

Quid de legitimo tempore partus humani statuendum sit?

In this Abstract of my Introductory LECTURE, it would be impossible to give a particular detail of the various Authors who have written on the Science of Midwifery; those of the Ancients afford but little instruction, and those of real merit among the Moderns are sufficiently known. Besides, due attention to such, I shall hereafter, in the course of my LECTURES, remark the various improvements which have been made, from time to time, by the most eminent Professors

*for*s in Europe ; and in the mean time take
a cursory View of the *Progress of this Art.*

In the first ages, Women in Labor were attended by their own sex, who gave their assistance without method, being rather directed by necessity than skill or choice ; hence, the progress and improvement of this Art must have been extremely slow. In difficult cases, compassion naturally inclined them to enquire into the cause of such difficulties, by touching the patient in the time of her *Labor-Pains* ; and in this manner they began to improve their slender knowledge, and made some observations that were of service in their future practice. For example, they could not help remarking, that in most cases where the Infant's head presented, the Patient was speedily delivered by the simple effects of her pains ; therefore they concluded this was *natural*.

On the contrary, when the arm, or any other part presented, the pains being insufficient to effect the Birth ; and they ignorant of the proper methods of assisting,
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the Mother generally died undelivered; consequently, they had great reason to suppose that all such Cases were *dangorous and preternatural*. Hence sprung the *division of Labors*, which they distinguished into *natural and preternatural*.

Midwifery at this time being chiefly exercised by Women, frequently fell into abuse. To remedy this evil, we are told, a Law was made at *Athens*, excluding them from practice, and appointing Men only, to take upon them the province of delivering Women, and directing Medicines for the several Diseases to which they were subject; but such was the effect of custom, that the legislative power was incessantly importuned, and at last prevailed upon to revoke this Edict, and restore Women to their former privilege of practising this Art; among whom *Cleopatra* and *Aspasia*, by their practice and writings, were most distinguished and made known to Posterity.

There does not appear sufficient reason for setting Female Practitioners aside, provided they

they are properly instructed, and not only able to distinguish when there is danger, but conscientiously endeavour to avoid it, by sending for farther assistance in due time, which indeed, too frequently is neglected. This is so far from disparagement to them, that it makes a necessary part of their Duty, for which they ought to be commended ; and therefore, when Men of the Profession are called in, they ought not to brow-beat and suggest hints to their disadvantage, but treat them with becoming civility, and, if possible, protect them from blame ; as an injury to their Reputation might affect the interest of a family which they are industrious to maintain.

The Progress and Improvement of Midwifery may be dated from the time of *Hippocrates*, who practised in Greece four hundred and sixty years before the death of Christ. He wrote several Books professedly on Diseases of Women, under the following titles : *de Morbis mulierum* ; *de Superfoetatione* ; *de Foetus in utero mortui extractione* ; *de Virginibus et de Sterilibus*.

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The medicines recommended by this Author are odd and indelicate, and his Theory extremely erroneous. In the hysterick Passion, he asserts that the Womb changes its place, and rises to the Stomach and Heart ; so that one would be apt to conclude, he had never seen its situation in the dissection of a Human Body ; otherwise, he could not have omitted to remark its connection to the surrounding parts. His Doctrine of Conception was adopted by Authors of the first rank, and adhered to, even till the Sixteenth Century ; but his method of practice deserves no attention, for it appears by a survey of his works, as well as those of the Ancients in general, *how imperfectly the Obstetric Art was known* ; so that if we compare *Hippocrates* discoursing on this Subject, with the same *Hippocrates* speaking of Diseases, pointing out their distinctions, and prognosticating their various events, *nil fuit unquam tam dispar sibi*. In the first, he is a stranger to the structure and functions of the parts appropriated to Generation and Parturition, but in the last, is wonderfully sagacious, accurate and just ; and therefore, as

a nice observer of Nature, and faithful recorder of her operations, he has stood the test of all ages, and justly continues admired and esteemed to the present time.

Aristotle also wrote on the subject of Midwifery, particularly on the *Generation of Animals*; and though his rules for practice are few and scarcely to be regarded, yet in his Seventh Book on this Subject are to be found several observations worthy of remark, under the following heads: Of the signs of *Puberty* in men and women; of the *Menses*; the signs of *Conception*, and symptoms which happen from thence to the time of *Labor*: Also the *situation of the Foetus in Utero*, the Child's Birth, and of the *Placenta* and *Funis*. He observes that the *Constitution*, both of the Male and Female, undergoes a considerable change at the time of *Puberty*; and that Women who have not the periodical *Flux* are generally barren, although some have been known to *Conceive*, who never had the *Discharge* at all. He asserts, that they suffer more than *Quadrupeds* in time of *Parturition*; that the *Foetus* is

is nourished by the Funis, and naturally presents with the Head ; that the period of gestation is various in the Human species, but that animals bring forth at a stated time, and with their bones perfectly formed. But the most extraordinary of all his positions is, that blind and lame Children, are generated of blind and lame parents ; from which it is plain he had adopted the Doctrine of *Hippocrates*, who asserts, that the *Semen* is a combination of organical particles, derived from the several parts of the Body, and that, being associated, they form a *Genitura* or rudiments of the *Embryo*.

Cornelius Celsus is the next Author of note, but what he lays down is chiefly borrowed from the Greek Physicians, particularly *Hippocrates*, so that he is rather consulted as the standard of elegance and true purity of style, than for any thing remarkably instructive on this subject.

Galen of Pergamus, a celebrated Greek Physician, was born A. D. 132, and lived in the reign of *Adrian*, about six hundred years

Years after the time of *Hippocrates*. He appears to have been a man of great Learning, and a subtle discerning genius, but assuming and vain-glorious, arrogating to himself the highest honors, and at the same time attempting to depreciate and lessen the authority of other Physicians. He wrote several books on the subject of Midwifery; namely, one *de Semine*; *de Formatione Foetus, et de Utcri dissectione*, wherein he lays claim to the discovery of those Tubes which were afterwards said to be found out by *Fallopious*.

This was the state of *Obstetric Knowledge* among the Greeks and Romans, but when the western empire was invaded and ravaged by Goths and Vandals, a barbarous people, and enemies to the polite Arts; the several sciences, for want of patronage, began to languish, and at last were neglected and forgot. The fate of learning in the East was much the same soon after, for the *Saracens* subdued Egypt, and destroyed the famous Library at Alexandria, the books being dispersed by the Calif's order, and

burnt at the several Bagnios. But in proportion as learning declined among the Greeks, it began to flourish among the Arabians, who extended their Empire over Asia, Africa and Europe, under the Calif *Almamon Abdalla*, who reigned A. D. 813, and caused the Greek Authors to be translated into the Syriac and Arabic tongue; for several of them were fortunately preserved, although the public Library was destroyed.

From this period, the Europeans, by their commerce with the Saracens, became acquainted with the Sciences; hence, the art of Physic was cultivated, and at last gave rise to two of the most ancient Colleges of Medicine in Europe; namely, those of *Salerno* and *Montpelier*, where the Doctrines of the Arabian Physicians were principally taught till the taking of *Constantinople* by the Turks, in the year 1453; for at this time the several learned men fled from thence, and took refuge in different parts of Europe, particularly in *Italy* and *France*, where they carried the Sciences; and as learning revived, men of genius now began to

to study *Hippocrates* and other Greek Physicians ; and the works of *Avicenna* and *Rhases*, whose Authorities had long prevailed, were now justly rejected. Thus was the Grecian Art of Medicine restored, and, by degrees, a solid system of Physic established, by which the causes and cure of Diseases were more rationally considered, and accurately distinguished.

To the time of *Paræus*, the great promoter of *Obstetric Knowledge*, the general practice of the Ancients was as follows : If the Infant did not present naturally, they shook the Woman and altered her position, a method so irrational, that it could answer no purpose, but that of tormenting her in vain. The Operator also attempted to bring the head to a right presentation ; if this failed, he then endeavoured to deliver by the feet ; but if none of these methods succeeded, it was treated as a dead Child—dismembered and extracted piece-meal with Crotchets.

In the year 1575, *Paræus*, a French Author, entirely rejecting those irrational

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proceedings of the Ancients, in all *preter-natural Labours*, expressly directs the Child to be *turned and delivered by the Feet*; which was a capital endeavour towards the advancement of the Art; for by this judicious method many Women were saved, who otherwise must have died undelivered.

From this time the improvements in Midwifery were many and great, both by manual operation and the invention of new Instruments. *Guillemeau*, who was a scholar of *Parès*, also wrote on the same subject, and improves much on the Rules laid down by his Predecessor.

From the time of *Guillemeau*, till that of *Mauriceau* (being upwards of half a Century) several useful Tracts appeared.—*Severinus* published a book on Pregnancy and Delivery; and in the year 1628, *G. Nymmanus* printed his Dissertation *de vita Foetus in utero*, wherein he proves that the Child may survive a considerable time after the Mother's death, and therefore admonishes Magistrates, and those who have the direction

direction of public affairs, to permit the opening of such Women as die undelivered, in order to preserve the Infant.

The works of *Sennertus*, a celebrated Professor of Physic at Wittemberg, were published in the year 1640; in which is to be found a valuable practical Treatise on the Diseases of Women and Children.

A. D. 1668, *Mauriceau*, after much experience at the Hotel Dieu, published a book on Midwifery, which came nearer to a complete System, in what regards Practice, than any thing which went before it; but his *Doctrine of Conception is false and erroneous*, and his Theory vague and irrational, though his practical Aphorisms are judicious and excellently deduced.

Various now were the Authors on Midwifery; for, *Dionis*, *Peu*, and *Portal* published their several works, and not long after, *Saviard*, who practised at the Hotel Dieu, also published several observations on Female Diseases. *Daventer*, a Dutch Physician,

fician, printed his book on the Art of Midwifery, in the year 1701, and became eminent by remarking, that the most common cause of difficult Labours arises from an *oblique situation of the Uterus*; the fallacy of which opinion will be shewn in the subsequent LECTURES.

From this time several detached pieces were published, though nothing very considerable, till *Lamotte*'s book appeared, in which are to be found many judicious Observations, candidly and circumstantially laid down, and therefore worthy of remark; but this Author, though a Modern, probably knew not the use of the *Forceps*, for in laborious Cases, where the difficulty is great, he directs the Child to be turned and brought by the Feet.

About the year 1721, many curious and uncommon Cases were published by the celebrated *Ruy sch*, and also his *Tract de Musculo in fundo uteri observato*. Soon after, *Vaterus* printed his *dissertatio pathologica de utero gravido*; and *Puzos*, in the Memoirs of

of the Royal Academy of Surgery at Paris, attempts to shew a more safe and gentle method of proceeding in uterine Hæmorrhages than had before been practised on such occasions.

In the year 1743, *Noortwyk*, a Dutch Physician, published at *Leiden* his Anatomical History of the gravid Uterus; and *Levret*, a celebrated Professor of Midwifery at *Paris*, also published three Volumes on that Subject.

Rodererus, Professor of Midwifery in the University of Gottingen, in the year 1759 printed the Second Edition of his *Elementa Artis Obstetricariæ*, in which the practice of Midwifery is concisely laid down; but as a public Teacher, whose Doctrine might have considerable influence on those who attended his LECTURES; it is much to be regretted, that he shews an uncommon propensity to the use of the *Crotchet*, an instrument of the *destructive kind*. He also published his Anatomical Tables of the gravid Uterus,

Uterus, where some of the parts are finely delineated.

About the same time *H. Crantz*, Professor of Midwifery at *Vienna*, in his *Dissertatio de re Instrumentaria*, gives a full historical account of the different Instruments used in Midwifery. He asserts, that the use of the *Crotchet* is never required, although they have been so frequently applied ; he thinks it ought to be deemed *Homicide*, where the *Head of a living Child is opened*, even tho' the life of the Mother should be in danger ; and therefore censures *Rodererus*, with uncommon severity, for inculcating this *barbarous practice*.

Moubray, Chapman and Ould; Giffard, Smellie, and Burton; Pugh, Johnstone, Hamilton and Osborn, are the last English writers on the subject of Midwifery.

It here seems proper, briefly to consider the *use and abuse of Instruments*, which the passion for novelty has multiplied to an extravagant number. Some of them, indeed, particularly

particularly the *Forceps*, have been found safe and effectual, in preserving the Mother and Child ; but wherever Delivery can be brought about by the simple force of *Labor-Pains*, all Instruments are unnecessary and improper ; since it would be injudicious and absurd to substitute Art, for the performance of that which might be better and *more safely accomplished by the powers of Nature only.*

Those who are not sufficiently conversant in Practice, from motives of fear, which always magnify danger, and suggest the worst, are often led to a more precipitate application of Instruments than is necessary or consistent with the Patient's safety. On the other hand, there are some who exclaim against all Instruments whatever, pretending they are dangerous and unnecessary ; but it may with reason be asked, whether this does not arise from vanity or artifice in such declaimers, and an endeavour to recommend themselves to the good opinion of timorous and weak-minded Women, who are alarmed at the very name of an Instrument, and had

had almost rather die, than call in the assistance of those who are said to make use of them? For all such as have candor and skill must allow, that Instruments, particularly the *Forceps*, are sometimes so absolutely necessary towards the preservation of both Mother and Child, that he who either wants dexterity or resolution to apply them, would be deficient in the duties of his office, and cannot with propriety be deemed a competent *Accoucheur*.

I did intend, in this place to have been more particular on the *use and abuse of Instruments*; but as it is first necessary to know the structure of parts concerned in Parturition, before we can have a just idea of their application, I must defer what is farther to be said on that subject, till we come to the **LECTURES** on Laborious Cases; where the different Instruments will be examined, by taking a comparative *View of their several Advantages and Defects*; particularly the *new Forceps with three blades*, described in my Introductory **LECTURE**, and illustrated by two copper-plate prints, exhibiting

exhibiting the utility of the *third blade*, where the long axis of the Child's Head crosses the short axis of a *narrow Pelvis*, like two ovals or Ellipses intersecting each other.

Whoever professes to teach a *Science*, ought to present those intending to study it, with a clear and comprehensive View of all its branches, and the means most conducive to a perfect knowledge of the whole. *Midwifery*, respecting its operative part, may be term'd an *Art*; but as it comprehends the nature and treatment of Diseases, it may more properly be considered as a *Science*, divided into Theory and Practice: Theory consists in a competent knowledge of *Anatomy* and *Physiology*, particularly what relates to Generation, and the menstrual Flux; œconomy of the gravid Uterus, the nature of Parturition, and Doctrine of *Diseases incident to Women and Children*. The method of assisting with dexterity in *laborious* and *preternatural Labours*, and acting with judgment in Cases of danger or difficulty, constitutes the practical part of this

Art.

Art. Without a previous and distinct knowledge of all these, no one deserves the name of *Accoucheur*, for if he ventures to give advice, or assistance not founded on rational Theory and the established Rules of his profession; he will act like a bungling Artificer, who vainly attempts to repair a complex Machine, without being acquainted with the several wheels and springs which compose it, or the principles upon which its motion depends.

From regard to the safety of Women, and the public good, as well as the credit of the Profession, it is much to be wished, that none were permitted to practise Midwifery, till they had given sufficient testimony of their skill, by *due Examination* before men appointed by legal Authority, for that purpose; as usual in other branches of Phyfic and Surgery. We should not then find the town and country over-run with *ignorant pretenders of both sexes*, who impose on the credulous, and supply their want of knowledge by arrogance and vain-boasting, or a flavish

flavish submission to the obstinacy, or avarice
of old Women and Nurses.

Where humility is joined with ignorance, it should rather excite pity than indignation; but it may be truly said, that those who are most deficient, are least able to perceive it; and instead of making up by diligence and application what they want in intellect, they are generally, of all others, the most self-conceited and presuming. Did the evil rest with such unworthy Members of Society only, it might be passed over in silence; but when it affects the immediate safety of such as unfortunately *intrust them with their lives*, it cannot be too seriously represented, or too openly exposed; and it is a moral position, which here may be reasonably insisted upon, that he who has it in his power to *save life*, without so doing, is *indirectly guilty of Murder!*

The Patient's life more immediately depends on the Operator's skill in this, than any other branch of Phyfic or Surgery; and therefore it is the indispensable duty of every one who engages in it, to render himself



himself duly qualified. He ought not to suppose, that a course or two of LECTURES, negligently attended, is sufficient for this purpose, and that he may then set out in Practice with reasonable hopes of success ; on the contrary, after obtaining a rational Theory, he should have *frequent opportunities of Practice*, without which he will never acquire dexterity of hand, or that resolution and firmness of mind, so necessary in all Cases of *Danger* and *Difficulty*. Instead of this, his behaviour will be timorous and confused, and *no one can reasonably expect to engage the confidence of others, who thus apparently distrusts himself*. Such conduct will always subject him to censure, and where another of the Profession is sent for, to perform what he is unable to do himself, it will degrade his character, and hinder his promotion.

The force of habit is so remarkable in the difficult operations of Midwifery, that it may be truly said, *'tis Practice which makes perfect* ; for the hand gains strength and dexterity in proportion to its use, and the mind

mind being familiar with danger, becomes more circumspect and deliberate than before ; whereas, fear enervates the hand, destroys recollection, and puts the thoughts into disorder and confusion.

Every one of this Profession, has a right to regulate his conduct by the rules of true policy, and to pay due attention to his own honorable gain ; but this is not to be done by timorous and time-serving deportment, not by chiming in with the prejudices of the People, by being in league with Nurses, and Ladies Women, or paying compliments to the wealthy and great at the expence of Truth ; not by imposing on the ignorant with pompous and pedantic jargon, or astonishing the vulgar with miraculous and pretended Cures, but by the principles directly opposed to all these. If such artifices degrade the meanest of mankind, surely they are unworthy of men professing a liberal Science, whom no interest should prompt to base and ignoble proceedings, even could they be supposed to escape detection and contempt.

The

The privilege of attending a PUBLIC LYING-IN HOSPITAL has long been wanting in this great Metropolis, to perfect students in the true *practical knowledge of Midwifery*; and it affords me much pleasure, that I have been able to obtain this singular advantage for my Pupils at the WESTMINSTER NEW LYING-IN HOSPITAL; where upwards of *five thousand Women have already been delivered under my Direction*; and where an additional number will now be admitted, by order of the Governors, in consequence of *many new Subscribers, and a Legacy of 3000l. bequeathed to this Charity, by the late Richard Russel, Esq.*

The utility of permitting Students, when duly qualified, and under proper regulations, to attend *Public Hospitals*, is so obvious, that this custom was laudably adopted in France many years ago, and is now allowed in other parts of Europe. Such privileges manifestly tend to the *Improvement of Midwifery*, and therefore will be productive of universal good, by extending the benefits of that Art to different parts of the kingdom, where

where those Students may hereafter chance to reside ; and who, from such previous advantages, will be duly qualified in dangerous Cases, to give their assistance with judgment and dexterity. Hence, many Women, the rich as well as the poor, *will be preserved, who otherwise might have fallen victims to the ignorance or insufficiency of unskillful Practitioners.*

It was owing to the wise and early institution of *Lying-in Hospitals in Paris*, and to the peculiar advantages and improvements resulting from them, that Students in Midwifery formerly resorted thither from other nations ; but though this Art is no where more rationally now taught, or more judiciously practised than in *London* ; it must be confessed, we were at first indebted to the *French* for many of its most capital improvements.

Nothing will more redound to the Public Good, than humane attention to the health and well-being of the *industrious poor*. A man of this Profession, by his advice and

timely assistance, may often administer relief and comfort to the afflicted, and even preserve life itself. To those who are blessed with sympathy and benevolence of heart, this will afford the most exalted pleasure, especially where such assistance is given to Women in the *hour of their distress*, who are to be considered as the weaker Sex, and unable to help each other.

At such times, none, who are worthy to be called Men, will desert *even the poorest of them*; their nerves are strung to the same sensations of pleasure and pain as those of the rich, they are formed of the same materials, and ordained to the same end. Let us look back to our own origin, and recollect that once we were, in reality, *parts of themselves*; for we sprung from their bodies, we were nourished by their blood, and should have perished in the very commencement of our being, had we not been sustained, nursed up, and cherished on their tender Bosoms, and protected by their unwearied care.

It would be cruel to take fees of those who suffer from the extremes of poverty and pain, especially *where Hospitals are wanting for their reception*; even a trifle, scarcely of benefit to the receiver, would be more than they could spare, who earn their daily bread with the sweat of their brows, and, with all their toil, are often unable to supply their needy families with the common necessaries of life !

We shall next consider the *Office of an Accoucheur*, which is attended with great fatigue of Body and anxiety of Mind. His patience will often be put to severe trials by the obstinacy and caprice of those under his care; by the petulance and self-sufficiency of ignorant Nurses, the insidious *whispers of Envy*, and the malevolence of those in his own Profession. The life of the Patient and his own reputation are depending, and where the event is fatal, he will frequently meet with undeserved censure and the most illiberal treatment; especially, among the lower class of people, who, being swayed by prejudice and vulgar Errors, too often *Judge*

out Reason, and condemn without Mercy. This will render his attendance irksome and tedious ; but so long as human Nature continues what it is, he must expect sometimes to meet with such unwelcome behaviour. *The tongue of Slander is as much at liberty as that of Truth*, and since it is not in his power to prevent injurious assertion, let it be his principal happiness, to act in such a manner as *not to deserve it* ; and being thus conscious of having done his duty, that alone will mitigate the hardship, and afford him consolation which nothing can take away. But, above all things, let him remember, that what is base and contemptible in others, he should carefully endeavour to avoid himself.

Besides these *Qualifications*, there are others no less necessary for the *Accoucheur*, in common with the rest of his Profession. Every one is a judge of his appearance and *Deportment*, though not of his Judgment and skill : The method of pleasing, as far as it is conformable to the principles of Honor and rules of good Breeding, ought therefore

therefore, to make no inconsiderable part of his Character: Of this the celebrated *Hoffman* was so sensible, that he published his *Medicus politicus*, and *Bohnius* also wrote *de officio medico*; but what has been laid down on that subject by the late Dr. *Gregory*, of Edinburgh, is preferable to the rest, having delivered his sentiments with becoming freedom, and the zeal of a Physician honestly solicitous for the credit of his Profession, and the advancement of true medical knowledge.

Whoever practises Midwifery, ought to be *sober, patient, and discrete*; polite and easy in his Address, and of a modest and humane Disposition; yet possessed of so much resolution, as not to be alarmed or disconcerted in cases of the greatest danger. At all such times, he should duly consider, and deliberately attend to the symptoms and circumstances before him, taking care to proceed with the distinct exercise of his Judgment and Reason, as *a few grains of Error, or proper Discernment, in extreme danger, may turn the Scale for Life or Death*

Death. When the Patient's situation is truly alarming, and the event likely to be fatal, her relations and friends should be apprised of it, and where the Operator finds the case singularly perplexing ; another of the Profession eminent for his candour and skill, ought to be called in ; but, whether in consultation, or speaking to the attendants, he should deliver his Opinion with clearness and prudent caution, avoiding all such *pedantic phrases* and mysterious terms of art, as are fitter for conjurors than men of Science. Let him avail himself of no illiberal methods, or attempt to filch a good name at the expence of another's Reputation ; but in all things, as becomes a man of Honor and true Benevolence, endeavour to promote the good of Society without ostentation, to support the credit of his Profession without pride, and to practise condescension without artifice or meanness.

Whatever assistance Women may at this time require, should be regarded with the utmost delicacy, their situation being only such, as it has ever been, and still must continue,

tinue, according to the stated laws of Nature. But, to inculcate what must be obvious to all men possessed with a sense of their Duty, and the common principles of Humanity, would be an unnecessary waste of time; should one in a thousand be found of a different character, surely, it would be inconsiderate and unjust to censure the whole Profession, for the delinquency of so small a part. It is not sufficient to say, that those who practise Midwifery have frequent opportunities of acting dishonorably; for if the means of violating their faith and honor could be proved the cause of doing so, all mutual confidence must then cease, and mankind in general, as well as they, might with equal reason be suspected; since there is no station or department in life which do not daily afford opportunities of acting basely.

The Plan which I intend to follow, in my COURSE of LECTURES, is exactly conformable to the order of particulars or *general heads* laid down in the SYLLABUS, which therefore, I have here annexed as a

SPECIMEN

SPECIMEN of the whole. From whence it will appear, that I propose not only to lay before my Pupils, the *Theory and Practice of Midwifery*, according to the Doctrines of the most eminent *modern Professors of that Art*, but also to expatiate largely on the Nature and Treatment of the various *Diseases incident to Women and Children*, whether *acute* or *chronical*, being a branch of Medical Science highly important, yet of all others most *imperfectly known to those who are young in the profession*. I shall likewise add some general Remarks on what is called *clinical Practice*, and shew the great utility resulting from it, in the cure of Diseases; as well as the uncommon advantage of *examining morbid appearances* in such Bodies as may be occasionally directed to be opened at the *Westminster Lying-in Hospital*, by permission of the Governors.

Here I must request, that such *Pupils* as do me the honor to attend, will take down their *Notes* with that deliberation and care, as neither to discredit themselves or misrepresent me. They will do well to consider,
that

that their own *future emolument and advancement in life*, will chiefly depend on the rank they hold in their Profession, for *Dexterity and Skill*, and that such necessary Qualifications are chiefly attained by assiduity and application.

In a word, those who propose to study the *Obstetric Art*, and to become deservedly eminent for professional merit, ought principally to avail themselves of *practical Knowledge*, founded on previous *rational Theory*; and not indolently content themselves with that *superficial and imperfect method of being instructed*, which hitherto has long prevailed; to the danger of the Patient, the discredit of the Science, and the injury of their own Reputation.

To conclude; from what has already been said, I presume the *public importance* of the SCIENCE of MIDWIFERY must be sufficiently evident; and was its utility only confined to the *Preservation of Women and their tender Offspring*, that alone would effectually recommend it to all good and sensible

sible Minds ; but, by a review of its several advantages, it appears a necessary *branch of Philosophy*, as well as *Physic* ; the *public administration of Justice*, under certain circumstances, calls for its aid, and even the *cause of Religion* itself has been promoted by its extensive influence.

SYLLABUS

S Y L L A B U S
O F
L E C T U R E S
On the THEORY and PRACTICE of
M I D W I F E R Y:

I N C L U D I N G

The *Pathology* or general *Doctrine of acute and chronic Diseases incident to Women and Children*, with their *Treatment and Cure*.

* * * For the clearer Demonstration of operative Midwifery (whether simply by the Hand, or *Application of Instruments*) the several Methods of assisting in *laborious and preternatural Labours*, will not only be described according to the *most approved modern Practice*, but likewise distinctly shewn by an *artificial Representation of each difficult Case*, upon *Machines of a new Construction*.

The whole will be illustrated by such *Anatomical Preparations* as are applicable to each Lecture; with various Observations, extraordinary Cases, and necessary Cautions; but particularly, by *real Labours*.

By JOHN LEAKE, M. D.

Member of the Royal College of Physicians, LONDON.
and PHYSICIAN to the

WESTMINSTER LYING-IN HOSPITAL.

At his House in Craven-Street in the Strand.

LONDON, A. D. 1786.

PROPOSALS.

Annual, or
Ten Guinea
Pupils.

TEN Guinea Pupils, and those intending to be duly qualified, for their more expeditious and effectual Improvement, and with a view to reduce their Theory to Practice, will be allowed to attend the *Westminster Lying-in Hospital*, in which upwards of 5000 Patients have been delivered, and where an additional number will now be admitted, in consequence of many new Subscribers, and a Legacy of Three Thousand Pounds, lately bequeathed to that Charity.

For two, or any greater number of Pupils commencing jointly, and at the same time, - - - 9 Guineas each.

Such will be deemed annual Students, and entitled to the same privileges as *Ten Guinea Pupils*, viz. they will be allowed the unusual Advantage of attending Labours singly, and uninterrupted by others, and consequently have clear and distinct ideas of Labour, from beginning to end.—Hence also, they will become expert and judicious in the ART of TOUCHING, and obtain true, practical knowledge of its Nature and Event, whether natural, difficult, or preternatural. They will likewise see the Treatment of Diseases, incident to Lying-in Women, and Infants, and may take Clinical Minutes of such remarkable Cases as occur at the Hospital during their attendance; which advantages

tages will be specified in their CERTIFICATE, implying such means of *real Improvement* as will justly entitle the young *Accoucheur* to the confidence of his Patients, when he comes to *private Practice*.

Gentlemen desirous of being *expeditiously qualified*, may have ample and immediate opportunity of improvement by *extra Privileges* at Lectures and Hospital.

First Course of Lectures - - 4 Guineas.

Every future Course - - - - 2 Guineas.

An *Hospital-Assistant to Dr. Leake* will occasionally be admitted for *six*, or *three* Months, and entitled to the following PRIVILEGES EXTRAORDINARY.

He may attend the Lectures as a *perpetual Pupil*, and will be allowed a *double share of Labours*, so as to render him expert in *manual Operation*, upon which his future Success will depend.

He will not only be allowed the Privilege of being present at all *preternatural and laborious Cases*; but also of seeing the treatment of Diseases incident to Lying-in Women, namely, those of *Child-bed Fever*, *uterine Hæmorrhages*, *Convulsions*, &c.

He will be permitted to examine the *morbid appearances* of bodies opened at the Hospital, with a view to illustrate the Cure of Diseases imperfectly understood; and also to take *Clinical Minutes* of such cases as occur during the time of his attendance.

{ Extra Privileges.

{ Single Courses.

{ House Surgeon.

*** The terms of Residence at the *Hospital* may be known by personal Application to Dr. LEAKE.

The *Winter Course* of Lectures will begin the *first Monday in October* and continue for *one Month*, from time to time, throughout the Year, as advertised in the *Public Papers*.

The *Pupils* being introduced at the *Hospital*, in rotation, according to the date of their commencement at Lectures, *such as enter their Names early* will attend Labours so much the sooner, and have more time and opportunity to see the variety of Practice in *laborious and preternatural Cases*, &c.

Before the Establishment of *This Public Hospital*, it was found extremely disagreeable for *Pupils* to attend Labours at a great distance from their Lodgings, among the *lowest Class of People*, where a number were called to the same Patient: From the indecency of this method, they were often exposed to *Insults*, and for all their trouble, could acquire no *true practical Knowledge*; for, where so many were present at the same Labor, it occasioned great confusion, and as they only touched her by turns, they could neither *exactly know the effect of her pains, or the natural progress of Labour*. On the contrary, each *Pupil*, after his introduction at *this Hospital*,

tal, will attend her in the same decent manner as if she was a private Patient of his own ; and be accommodated with a sleeping Room in the House, during his attendance.

Female Pupils may be instructed, and soon duly qualified for their own *Practice*, by being allowed to reside in the Hospital.

{ Female Pupils:

Farther Particulars may be known at the Doctor's House, in Craven-Street, or at the WESTMINSTER LYING-IN HOSPITAL, near the Bridge ; which is commodiously situated for the Attendance of Pupils, in a middle Space between St. Thomas's, St. Bartholomew's, and St. George's Hospitals.

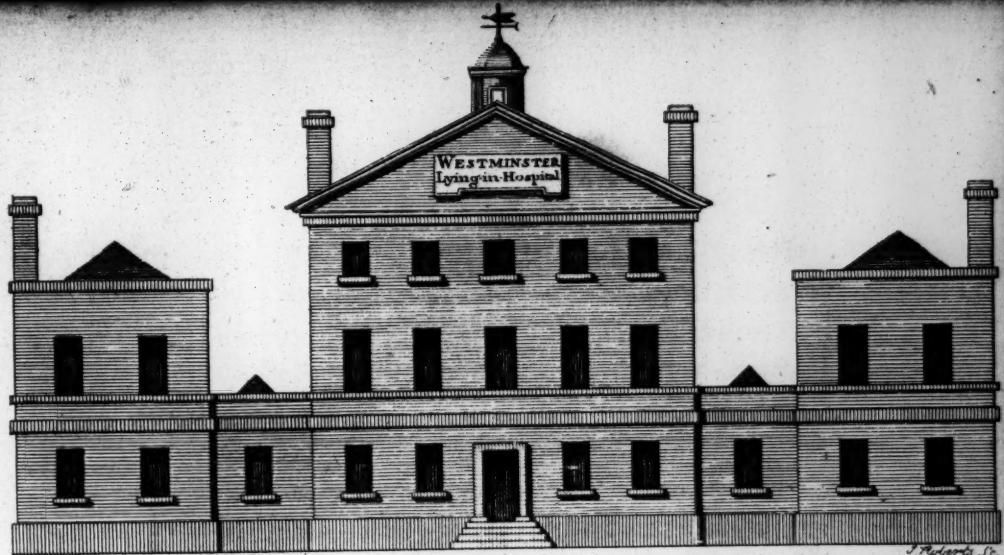
U S E O F
OBSTETRIC APPARATUS.

IN the practical part of Midwifery, there is a kind of dexterity required which cannot be taught by description ; nothing but Practice itself can adapt the hand of the Student to the easy and judicious Performance of manual Operations : Therefore, for the clearer illustration of this Art, the several difficult Labours will be artificially represented on Machines of a new Construction, substituted for the real bodies of Women and Children. In the first, all the parts concerned in PARTURITION are fabricated upon the

the Female Skeleton, in exact imitation of Nature ; and in the last, the effect of Pressure on the Infant's head, will be exemplified by an artificial Fœtus.

By means of this APPARATUS, each difficult case will be reduced to Demonstration, which will afford the Pupil such solid Practical Knowledge as cannot be forgot. From thence he will become acquainted with the Position most conducive to Speedy Delivery ; and acquire Skill and Dexterity in applying the Forceps, and other Instruments used in Laborious Cases ; but particularly, in preternatural Labours, where the Patient's life depends upon his immediate assistance, he will learn the proper method of turning the Infant, by an artificial Uterus, which contracts on the hand of the Operator (by imperceptible means), with any degree of force required, so as to give him precisely the same ideas of difficulty as present themselves in Nature ; and in a manner not hitherto demonstrated by any other Apparatus in Europe.

ABSTRACT



J. Roberts Sc.

A B S T R A C T A C C O U N T
O F T H E
W E S T M I N S T E R L Y I N G - I N H O S P I T A L ,
N E A R T H E B R I D G E ,

I n s t i t u t e d A. D. 1765 , a n d s u p p o r t e d b y V o l u n t a r y
S u b s c r i p t i o n .

R i g h t H o n. L o r d G R O S V E N O R , P r e s i d e n t .

D u k e o f R u t l a n d , } V i c e } R t. H o n. C. J. F o x ,
L o r d H o o d , } P r e s i d e n t s , } M a j. G e n. S i r R. B o y d ,
H o n. G e n. W. H e r v e y , } } H o n. T. G r o s v e n o r .

I N the year 1765 , Dr. John Leake of Craven-Street, London, purchased a piece of Ground on a Building Lease, and afterwards presented to the Public, the *Original Plan for the Institution of this Hospital*. Soon after the Building was raised, he voluntarily, and without any consideration, assigned over to the Governors, all his right of the above Ground, in favor of the said Hospital.

G

B e i n g

Being honored with the Patronage of several *Gentlemen of Distinction*, and favored by the assistance of his Friends, and the Public, which he is desirous most respectfully to acknowledge ; he, at last, had the satisfaction of seeing this charitable design carried into execution, after the repeated exertion of his utmost endeavours to that end.

The Institution of this Hospital, was principally designed to relieve the *Wives of distressed Housekeepers*, who either from unavoidable misfortunes, or the expence of maintaining large families, were *reduced to real want* ; also for those of *Soldiers* and *Sailors*.—But the Governors moved with compassion at the many severe hardships of *Single Women*, who, on that account, were rejected elsewhere ; they unanimously resolved to admit such of them as are deserted and in deep distress ; with the humane intention of saving them from *Despair*, and preventing the lamentable Crimes of *Suicide*, and *Child Murder* !

But, great expences having been incurred by the two frequent and indiscriminate admission of unmarried Women ; Resolved by the Governors, That Two Guineas be paid in, as a TEMPORARY SUBSCRIPTION by all such as are not ANNUAL Governors, and only applied for the sole purpose, and *partial advantage*, of obtaining admission for a single Woman.

This

This Hospital, in which upwards of 5000 Patients have been delivered, *being instituted upon the most liberal and extensive Plan*, of admitting both *married and single Women*, as well as *delivering others at their own habitations*, and giving *advice to the Sick*, without Fee or Reward ; the Governors hope for its support from the affluent and humane, who by *Will*, or other Donation, may be pleased to contribute thereto.

Subscriptions are received by Messrs. Drummond and Co. Bankers, at Charing-Cross, and at the Hospital, where may be had, at large, a *printed Account of the Charity*, with *printed Receipts for temporary Subscriptions*.

Physicians, { Dr. John Leake,
&c. to the { Dr. James Ford, Physician to the Queen,
Hospital. { Dr. Richard Huck Saunders.

Mr. Lewis Poignand, Surgeon.

Rev. Mr. Stainby, Chaplain.

Visiting Apothecaries, { Robert Sherfon, Esq.
&c. { Mr. Grant.

A Matron.

S Y L L A B U S
OF
L E C T U R E S.

INTRODUCTORY LECTURE.

AN historical view of the Rise, Progress, and present state of Midwifery ; with the Theory and Practice of ancient Writers.

General account of the Doctrine, Writings, and Improvements of the most eminent *Modern Professors* of Midwifery ; particularly, those who now give public Lectures on that science in different parts of Europe.

The Means most conducive to a perfect Knowledge of the Theory and Practice of Midwifery.

Qualification and Deportment of an Accoucheur.

LECTURE

LECTURE II.

Anatomy of the Female Pelvis, with a Description of the Form, Situation and Connexion of the several bones of which it is made up, viz. *Os Sacrum*, *Coccyx* and *Offa innominata*, with their Ligamens, Cartilages, and surrounding Muscles.

Division of the Offa innominata into their several bones, viz.

Ilium,
Ischium, &
Pubis.

The Dimensions of a well-formed Pelvis at its brim and bottom;—its Extent from side to side, and from posterior to anterior Part; with its posterior, anterior and lateral depth.

Figure of its cavity, and difference between a well-formed and distorted Pelvis; also the marks which distinguish the *Male* from *Female Pelvis*.

Causes of a distorted or *Narrow Pelvis*, and its dangerous consequence to Child-bearing Women.

Of the Shape, Structure, and different Diameters of the Fœtal Cranium; with the advantage of knowing its relative Proportion to the Pelvis, as it passes thro' the bony cavity in different directions.

Remarks

Remarks on the membranous connexion of the bones composing the infant's skull;—different from the Adult,—and how corresponding with the intention of nature in facilitating the Child's Birth.

LECTURE III.

Of the *Female Organs of Generation, viz.*

Externally	{ Pudenda, Meatus Urinarius, Clitoris, & Nymphæ.
Internally	{ Hymen, Vagina, Os internum & Uterus ; Fallopian Tubes, Ovaria and Ligaments.
Contiguous Parts,	{ Vesica-Urianria, Rectum & Perinæum.

Figure of the Uterus in its virgin state, and after Pregnancy; and of the gradual distention of the fundus and cervix Uteri at different periods of Gestation.

* * *The several Parts will be shewn in Situ Naturæ, with Physiological Observations on their Structure and Use.*

LECTURE



LECTURE IV.

Of the several *Diseases incident to the Organs of Generation*, and Methods of their Cure, viz.

Prolapsus Vaginæ & Uteri,—their nature and treatment.

Of *Pessaries* invented and recommended for the relief of the above Complaints,—their pernicious effects.

Stone in the Bladder,—its bad consequence to Women in Labor.—Painful symptoms thence arising—how relieved.

Of *Ruptures in general*, and a particular species of *Hernia* peculiar to Women.

The *retroverted Womb*,—its nature and treatment.

Imperforated Hymen and Operation necessary for its Cure.

LECTURE V.

Of the Menstrual Flux.

Various Hypotheses laid down by *Physiologists*, to account for that extraordinary phænomenon.

Of

Of the change produced in the female constitution, at the age of Puberty.

—*Menses in their morbid State*, viz. when irregular, obstructed, or too large in quantity.

Of the deviating *Menses*.

Cessation of the Menses, and disorders from thence arising.

LECTURE VI.

Of *Chlorosis*, *Hystric Affections*, and *Furor Uterinus*.

Fluor Albus ;—how distinguished from Gonorrhœa virulenta, *Menses decolores*, or discharge of an Ulcer in the womb ; with their several causes, and *method of Cure*.

Dropfy of the Ovaria—its nature and event.

Of the *cancerous Womb* ; *schirrous and cancerous Breast*, and effects of *Cicuta* ; *Vegeto-mineral Water*, and other medicines in those Disorders.

Of *Sterility or Barrenness*, with its several causes, as relative to both Sexes ; and of the means most conducive to remedy such Defects.

LECTURE

LECTURE VII.

Of Generation.

Ancient and modern Doctrine of Conception, and various opinions advanced by different Authors on that subject.

Genitura of the Ancients,—what?

The Oviparous system of *Harvey*, *Malpighius*, and *De Graaf* ;—Animalcular System of *Hammus*, *Lceurwenhoek*, and *Hartsoker*, and corpuscular organical System of *M. Buffon*.

Of the *impregnated Ovum*, and its descent into the Uterus by the fallopian Tube ; with the progressive order in which the several parts of the *Embryo* unfold themselves in magnitude, and figure, from conception to the time of birth.

Viviparous and *Oviparous* animals,—their analogy considered in the manner of their production.

Aequivocal Generation,—exploded by the experiments of *Redi*.

Of *Twins*, Superfœtation, false Conceptions, and Moles.

—Extra-uterine Fœtuses, and production of Monsters ; with remarks on the cases mentioned by *Licetus*, &c.

The term of uterine Gestation.

LECTURE

LECTURE VIII.

Complaints which follow Conception;—their various causes, and palliative method of Cure.

Signs of Conception,— how distinguished from obstructed cataminia, the encysted Dropfy, or other equivocal marks of Pregnancy.

Nausea, Vomiting, and Longing for unnatural substances.

Of the Hæmorrhoids, Costiveness, anasarcaous Swelling of the Legs, Cough and difficulty of breathing; and also the several Disorders arising from distention of the Uterus, and compression of the viscera, in the last months of Pregnancy.

Treatment and cure of the Gonorrhœa virulenta, and *Lues Venerea*, during Pregnancy.

Of *Abortion* from a fault of the Mother's constitution;—Diseases of the Fœtus, or preternatural conformation of the Uterus;—from inordinate passions of the Mind;—external violence, or any cause which may occasion a separation of the *Placenta* from the Uterus.

Abortion,—most frequent in the three first months of uterine Gestation;—and why?

Remedies most effectual in preventing or relieving the symptoms of Abortion.

Obstruction of Urine, at the latter end of Pregnancy.

Rules and Cautions, for the Conduct, and Regimen of Women during the several periods of Pregnancy.

LECTURE

LECTURE IX.

Of the *Fætus*.

Situation of the Fætus in Utero, and parts peculiar to it, viz.

Placenta and its membranes ; and of the quantity, quality and use of the *Liquor Amnii*, or contained Waters.

Funis Umbilicalis or navel-String,—course of its Vessels traced to their origin, with their several connexions and dependencies respecting the Mother and Child.

Nutrition and Circulation of blood in the Fœtus ; and of the *Foramen Ovale, Canalis arteriosus*, and *Ductus venosus*.

Of the *Allantois* and *Urachus*.

Difference between the Fœtus and Adult, and of the change produced in the first, by the effect of *Respiration*.

Most effectual *Means of recovering Children, born apparently dead*.

Experiment to discover, whether the Infant was *still-born*, or destroyed after the Birth; with necessary cautions in reports to *Juries*, or in cases of evidence against the accused.

*** *The several Parts peculiar to the Foetus, will be demonstrated by Anatomical Preparations.*

LECTURE

LECTURE X.

Signs which precede, or accompany true Labor.

Of the nature, cause and effects of *Labor Pains*, and expulsive force of the Uterus in its gravid state.

Method of Touching in the first months of Pregnancy, and at the time of Labor, with the information thence arising, viz. Whether the woman is with child or not; and whether in danger of Miscarriage; also what changes of the Os Uteri, indicate Labor, and distinguish *true Pains* from those which are *spurious*;—how to promote the one, and relieve the other.

The great advantage of being thoroughly conversant in the *Art of Touching*, and truly distinguishing the presenting Parts; with Cautions and Remarks in doubtful cases.

Gradual dilatation of the Os Uteri, by the protruded Membranes, or pressure of the Child's Head.

Too early rupture of the Membranes and discharge of the Waters.

Preternatural strength or rigidity of the Membranes, and how the progress of Labor may be retarded in such cases; with the methods to remedy these inconveniences.

Signs of a *dead Child*.

The bad consequence of hastening Labor unseasonably in natural Cases, and danger of delays, or of *stimulating Medicines*, where the Child presents in a wrong position.

LECTURE

LECTURE XI.

Division of Labours, viz. *Natural, Difficult, and Preternatural.*

Position of the Patient most conducive to a speedy Delivery, in the several kinds of Labor; and the methods practised in different Countries on that occasion.

*** A natural Labor artificially represented on the *Apparatus*, (*in a Manner not hitherto effected*) distinctly shewing the gradual dilatation of the *Os Uteri* and protrusion of the *Membranes*, with their alternate *distention and relaxation*, as the Pains come on, and go off.

Rupture of the *Membranes* and evacuation of the *Waters* exactly imitated.

*** An *artificial Demonstration of the Womb's progressive contraction as the Child advances in the Birth.*

Manner how the Child's Head presents to the birth in natural cases,—the turns it makes in passing through the *Pelvis*; and of *guarding the Perinæum* from laceration.

Ould's Observations, respecting the position of the head, in natural cases.

Force of pressure on the Infant's head exemplified by an *artificial Foetus*, so constructed as to allow of the same motion in the bones of the *Cranium* as that of the real Child.

Of

Of tying and cutting the Funis, and extracting the Placenta; with Remarks on the conduct of Animals in the division of the Funis; and likewise on the Orbicularis Muscle, described by Ruyfch.

Of the *Placenta* presenting loose, or adhering to the *Os Uteri*,—cause of uterine Hæmorrhage.—How to act in such cases for the preservation of the Mother.

The method of discovering, whether there is a second Child or not,

L E C T U R E XII.

Of Difficult Labours, where extraordinary assistance is required.

The various causes of difficult or laborious Cases; particularly, weakness of the Patient and absence of her Pains;—anxiety of Mind, floodings, or other profuse evacuations;—A narrow or distorted Pelvis,—rigidity or preternatural constriction of the Passages,—induration of the *Os Uteri*, or wrong position of the Child's head; its being too large, over ossified, or dropsical.

General Rules how to assist in the various kinds of *laborious Cases*.

Daventer's sentiments on Obliquities of the Womb considered, and refuted.

Method

Method of Practice when the birth is retarded by twisting of the Funis round the Child's neck.

The *Use and Abuse of Instruments*; with a comparative view of their advantages and defects, resulting from their mechanical Structure, action and manner of application.

Of *Palfyn's* and *Levret's* long Forceps, and also of those recommended by *Smellie, &c.*

The *Veetis or Lever* invented by *Roonbuyse*.
—Its use.

* * * Description and Use of the Author's NEW FORCEPS, with three Blades, in which the mechanical Powers of the Forceps and Lever are combined, and their utility demonstrated and confirmed by the concurring testimonies of FOREIGN PROFESSORS, in Letters to the Author.

L E C T U R E XIII.

Of the Vertex
 — Fontanelle }
 — Face } presenting.
 — Ear }

††† A difficult Labor represented, by an artificial Woman and Child, shewing the Method of applying the Forceps, and other Instruments, in the several positions of the Child's head.

Levret's Method of Practice when the Face is turn'd to the Pubes.

Methods

Methods of discovering narrownes of the Pelvis, and position, or extraordinary bulk of the Child's head.

Practical Rules and Cautions in the Application of the Forceps, and extraction of the head.

Cases where the Forceps cannot be successfully applied, altho' the head presents.

Of the particular Cases which require Instruments, and the time their application becomes absolutely necessary for the preservation of the Mother.

Symptoms denoting immediate Danger.

Crotchets and Perforators,—in what Cases their application condemned by *Crantz* of Vienna. *Roederer*, Professor of Midwifery at Gottingen,—censured by the above author for inculcating their frequent use.

Of the Terebra Occulta, Long Scissars and Scalpel Ring ; with the manner of opening the Child's head, when too large to pass, and the Mother's life is in danger ;—how to extract it safely by the Forceps, Crotchet, or Tire-Tête of *Mauriceau*.

LECTURE XIV.

Of *preternatural Labours*, where the Child is to be turned and brought by the Feet.

Method of turning the Child.

Mechanical knowledge applied to the Operation of turning the Child,—how useful.

The

The dangerous Consequence of applying too much force in such cases.

Ruptured Womb,—fatal to the Patient.

Practical Rules and Cautions in the various kinds of preternatural Labours.

Remarks on the *Insufficiency, and Impropriety* of a *Glass Uterus*, in demonstrating the manner of turning the Child, in *Twin Cases*, or otherwise.

+++ The several kinds of *preternatural Labours* will be *artificially represented on Machinery*, according to the most approved modern Practice.

LECTURE XV.

Method of delivering when the *Feet, Knees, or Breech* present.

How to assist where the Child presents with the Breech, and cannot safely be turned and brought by the *Feet*.

Practical Rules to be observed in the above Case.

Of the *Blunt Hook* and its Application.

+++ *A Breech-case artificially represented.*

Of the Child lying cross the *Uterus*, and presenting with its *Back, Belly, or Side*,—assistance necessary on such occasions.

LECTURE XVI.

Of the *Funis Umbilicalis* presenting before the Child's Head, and danger of its compression in the Passage.

++ Method of delivering where the Arm or Shoulder present, artificially demonstrated by the Apparatus; on which is also represented the *contractive force of the Uterus* on the body of the Infant, in a manner exactly conformable to nature.

Transverse position of the arms between the hind-head and pubes, where the Child is brought footling.

Of the safest and most expeditious methods of extracting the Head when detained by the narrowness of the Pelvis; and the danger of delays or too much violence on that occasion.

Manner of extracting the Child's Head when separated from the body and left *in utero*; with the use of *Amand's Net*, *Terebra Occulta*, *Tire-Tête*, and *Forceps*.

LECTURE XVII.

The Delivery of Twins or plurality of Children, and extraction of their *Placenta*; with Remarks on cutting and tying the Funis of the first-born Infant.

The

The Birth of Monsters, and extraction of false Conceptions, Moles, or Polypose Tumors of the Uterus.

Observations on the Section of the Symphysis Pubis, successfully performed at Paris by Si-gault, and recommended by M. Le Roy.—The Operation justified by its success in different parts of Europe.

Of the Cæsarian Operation; with Remarks on the cases mentioned by Roffetus and others.

LECTURE XVIII.

Of Uterine Hæmorrhages, Convulsions, and acute Fevers in the state of Pregnancy.

Of Floodings before Delivery, from external Violence,—Fevers,—Passions of the mind, or any cause preternaturally encreasing the momentum of blood.

Floodings after Delivery—from violent extraction of the Placenta; distention of the womb by a second child, or want of its due contraction, from general weakness of the Solids.

The several methods of treating Uterine Hæmorrhages examined.—A new and successful one recommended by the Author.

Convulsions;—their various Causes and medical Treatment.

LECTURE XIX.

Treatment of Women after Delivery;—the Regimen then necessary, and means most conducive to their recovery.

Of the Maladies consequent of Delivery, viz. *After-pains, Inflammation, Contusion, or Rupture of the Uterus.*

Laceration of the Bladder, or Perinæum;—and Applications necessary in the intention of cure.

Obstruction, or Incontinence of Urine, and *Method of passing the Catheter.*

Inversion of the Womb, and Prolapsion of the Rectum.—their cause and cure.

Of the *Lochia*, when obstructed, or redundant in quantity; and effects of *Opiates* or other medicines in the above cases.

General Observations on the nature and treatment of *obstructed Lochia*.

LECTURE XX.

*** Animadversions on the nature and cause of the acute, epidemic Fever peculiar to Women after Delivery, commonly called *Child-bed Fever*;—with *Clinical Observations and Remarks* towards the most effectual Methods of its cure.

Of *Milk Fever*, and inflammation or abscess of the breasts.

Topical

Topical Applications for repelling the Milk—pernicious, and why.

Milliary Eruption, Diarrhœa, or other Evacuations supervening the milk Fever or obstructed Lochia.

Colostrum or first Milk,—its Qualities and Effects on the sucking Infant.

Of the *Nature and Secretion of Milk* ;—how rendered *medicinal* to the Infant.

Evacuations necessary at the end of the month.

LECTURE XXI.

The Treatment and Regimen of new-born Infants,

Disorders in general attending the *first State of Infancy*, and most approved methods of their cure.

Of Fractures and Dislocations, and a species of *Hydrocele* peculiar to new born Infants.

Of the { Mould-shot head,
Hydrocephalus, and
Spina Bifida.
 Hare Lip,
 Confinement of the Tongue, and
 Obstruction of the natural Passages.

Of { *Hernia Congenita*,
Icterus Infantum,
 Dentition, and
 Dysentery.

Of { *Tinea*,
Apthæ, &
Crusta Lactea.

LECTURE XXII.

Acute and chronic Diseases, in general, incident to the *second State of Infancy* ;—their Pathology and method of cure.

Of { *Small-pox*, and the artificial method of communicating that Disease by *Inoculation*.

Measles,
Tussis Convulsiva, and
Epilepsia Infantum.

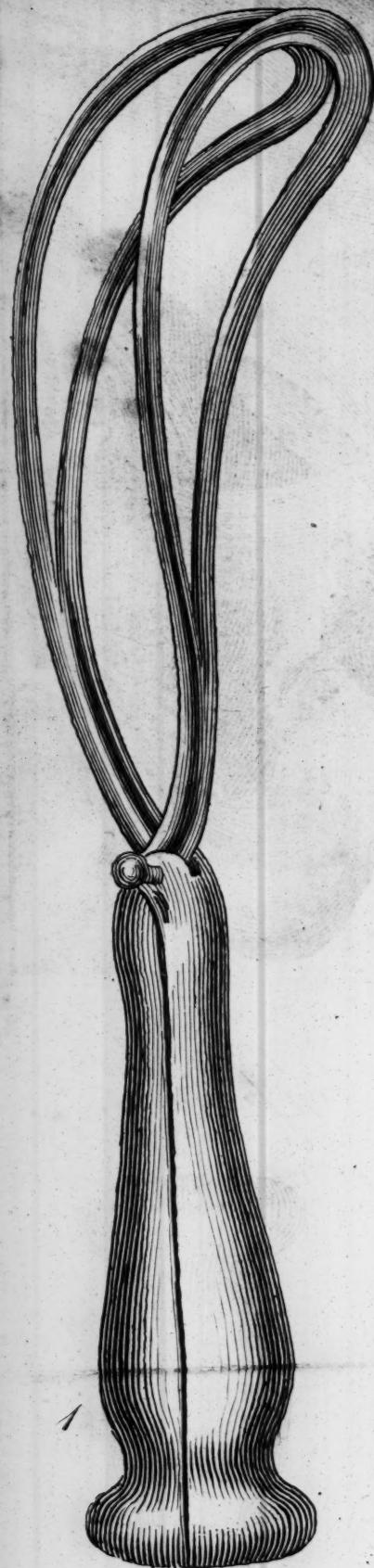
Of { *Rickets*,
Atrophy, and
Disorders arising from *Worms*.
Scrophula.
Lues Venerea, &
Hereditary Diseases.

Practical cautions respecting the indiscriminate use of *Bleeding*, *Blisters*, and *Opiates*, in Diseases of Children.

Directions for the Choice of a Wet Nurse—indications to be taken from her habit of body and quality of Milk; with Rules for the regulation of her Diet in *Disorders incident to the Child*.

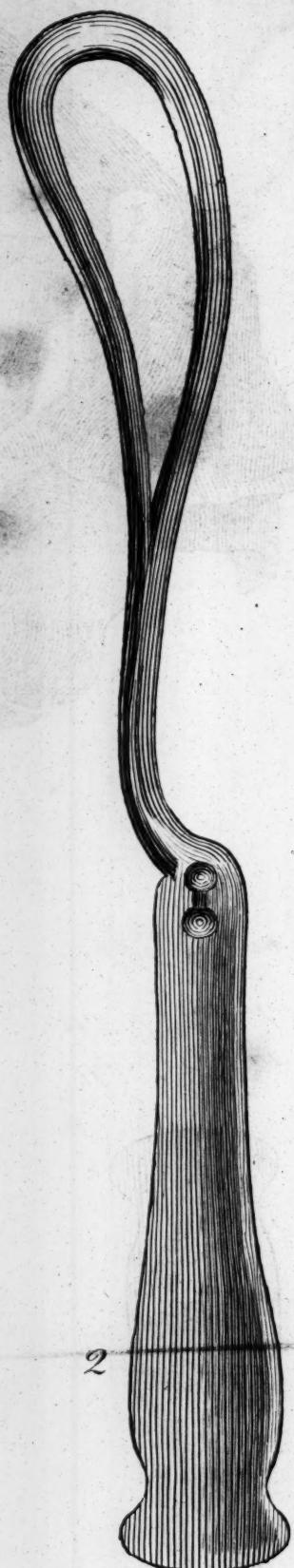
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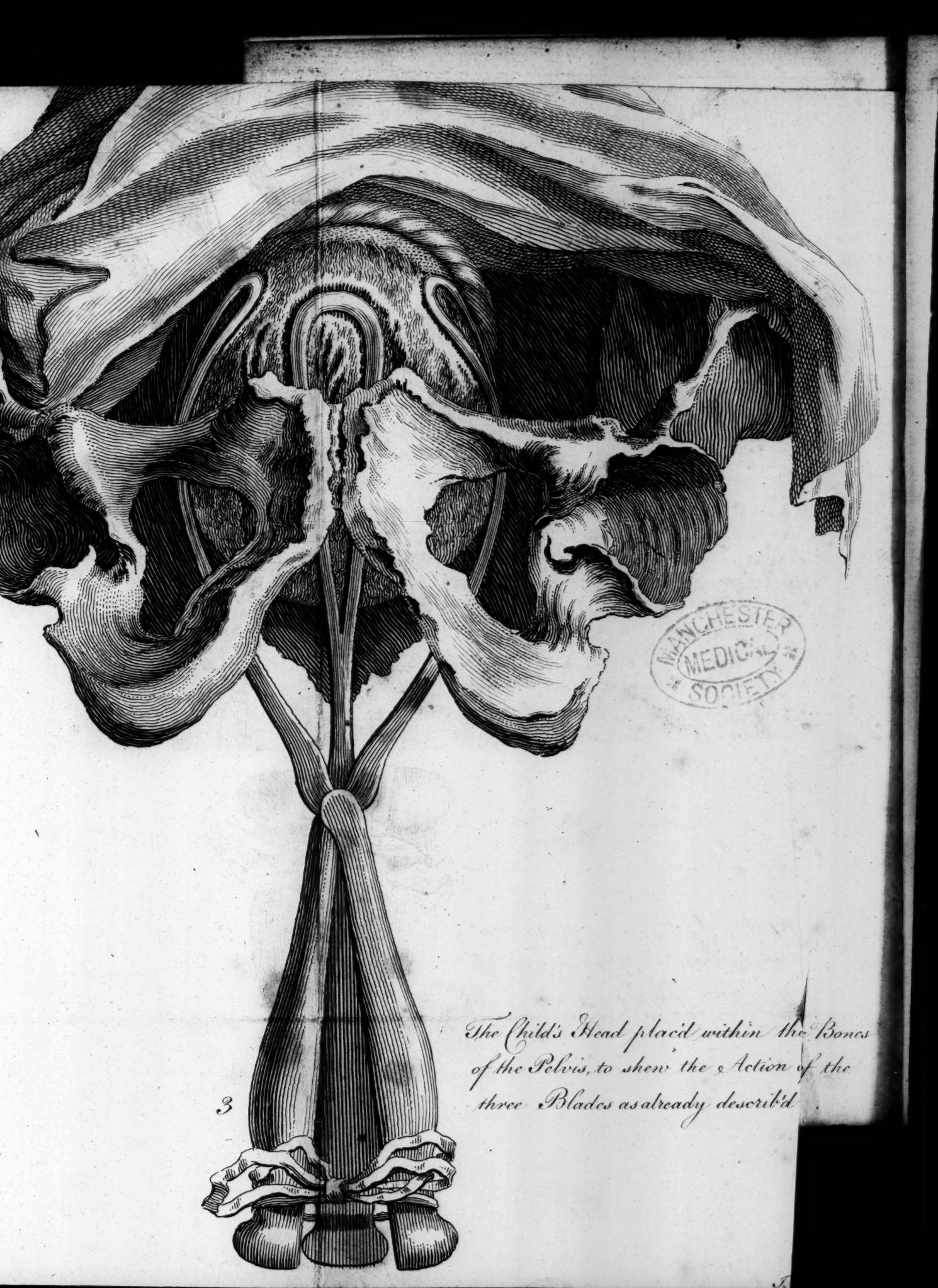
The Blades of the
Forceps join'd

C. Stewart del.



The Lever or
third Blade





The Child's Head placed within the Bones
of the Pelvis, to shew the Action of the
three Blades as already describ'd.

DESCRIPTION AND USE
OF THE
NEW FORCEPS
WITH THREE BLADES.



THE *Forceps* used in **MIDWIFERY** may be considered as an Instrument consisting of two Levers, which act in contrary directions from one common centre or fulcrum, where their Blades unite, and are sustained by each other; consequently, their power on the body to be moved, will be in proportion to the length of their *Levers* or handles.

H. Crantz, Professor of Midwifery at *Vienna*, and *Levret* of *Paris*, as well as many others have observed, that when the Child's head is wedged within the bones of the *Pelvis*, (*capite incuneato*) it can scarcely ever be extracted by the *common Forceps* recommended by *Smellie*, because of their *shortness*; and as their blades are *only curved in one direction*, whenever it happens that the hind-head is forced over the *Sympysis Pubis*, it cannot then be got hold of within the curve of their blades, which being *only applied*

applied along the ears, in a *straight direction*, are therefore apt to slip downwards over the face, and foil the Operator in extracting the head: This will the rather happen, because being *taper towards the points*, their surface of contract on the head, will from thence be diminished, and consequently they cannot take a firm hold; *so that they will be least serviceable in those very cases where they are most wanted*; —namely, where the *Pelvis is narrow*; for it is allowed, of all difficulties, that which happens from the above cause, is by far the most *insurmountable obstacle of the Child's birth*, since it can only be overcome by very strong pains, which compress the head, and force it to conform to the bony passage.

The *short Forceps* may indeed be effectually applied when the Child's head is low in the Pelvis; but where that is the case, artificial assistance is seldom necessary, the *principal difficulty being then over*; because the head has descended through the *brim of the Pelvis*, —a narrow, indilatable, bony passage; into a *wider one*, which is dilatable, namely, the *inferior cavity of the Pelvis*. But should any difficulty still remain, it will then be removed by the *concourse of two causes*; viz. the inferior parts of the Pelvis will gradually *dilate and give way to the head*, which at the same time, will yield to the force of pressure, and *give way to the passage*, both which circumstances have a mutual, and manifest tendency to facilitate the birth.

I know

I know that the application of Forceps is objected by some, till after the head has descended below the brim of the Pelvis, on the supposition that the force then applied to bring it down, would prove injurious to the Mother. But the *violent and long continued compression of the soft parts*, viz. the *Vagina and neck of the bladder*, when squeezed between the head and bones of the Pelvis, will be much more liable to endanger the Patient.—Since instances may be found where a *mortification* of those parts was the consequence, and where the *Child by the force of such extreme pressure was also born dead* :—Of two Evils, therefore, the least is to be chosen.

Of such it may be asked, what they would do, *when the head is wedged within the bony passage, and will not advance by the strongest pains*; especially, if dangerous symptoms occur; namely, *intermitting pulse, coldness of the extremities, faintings, &c.* and consequently where the Patient is in danger of *dying undelivered*. Under such pressing circumstances, they must either *open the head of a living Child*;—*use the long, double curved Forceps*, or *suffer the Patient to die undelivered*. We have already seen that delivery, in such cases, cannot be effected by the *short Forceps*; therefore, every Operator of feeling and humanity will not fail to apply the *long ones*, instead of having recourse to *that barbarous operation of opening a living Child's head*!—Indeed, such is the real

real excellence and utility of the *long Forceps* that they *renders this inhuman practice entirely unnecessary*.

In Cafes, therefore, extremely laborious, when the *head is large*,—the *Pelvis narrow*, or both ;—where the Patient's strength is exhausted by *Uterine Haemorrhage*,—where she is suddenly attacked with *convulsions*, *faintings*, or other alarming symptoms, and consequently, where the *labor pains would be insufficient* to bring forth the Child; the *long, double curved Forceps*, hereafter described, may be used with great safety and advantage, either with *with or without the Lever or third Blade*, as occasion may require.

When the fore-head presents to the *Os Sacrum*, and hind-head to the *Pubes*; the long axis of the head intersects the short axis of the Pelvis, and therefore, these parts may be considered as *two Ellipses or Ovals crossing each other*;—a position very unfavorable for the Child's birth. Here the Blades of the Forceps are usually applied along the ears, and we are directed to turn the face to one side, so that there may be a *perfect Coincidence* between the shape of the head and cavity of the Pelvis; but this cannot always be done without much violence; besides, when it is wedged within the brim, we cannot always be certain of its exact position, and therefore, should it happen to be turned the wrong way, the difficulty would be increased; consequently, there

there will often be *a necessity of bringing it along as it first presented*.—Whenever this is the case, a very capital inconvenience will occur in every kind of *Forceps*, for when they are thus applied on the sides of the head, the more it is there compressed by the Blades, the more will the *hind-head be forced over the Pubes*, and *fore-head against the Sacrum*, which will still add to the difficulty; and consequently *it cannot be extracted in this manner, without very great violence, both to the Mother and Child*:—This circumstance has happened to me in practice, several times, particularly in *two laborious cases*, where the repeated application of the Blades on the sides of the head *proved ineffectual*; and dangerous symptoms appearing, I was afraid of farther delay, and therefore, introduced them at the *Sacrum and Pubes*, that is, on the *Face and Occiput*, and by such means *extracted the head with ease at the first effort*: The Patient, during the operation, was placed on her left side.

As this success was plainly owing to compression of the longest Axis of the head, it first suggested to me the utility of applying *Forceps with three Blades*, one of which may be occasionally used as a *Lever*, and will act on the same principle as that of *Roonbuyse*, by means of which, he is said to have practised with so much reputation and success in *Holland*, that *De Vischer* and *Van de Paol*, (two Physicians of *Amsterdam*) purchased it as *secret*, for

for a considerable sum of money, and afterwards published it for the general good : 'Tis only a *simple Lever*, which, in laborious cases, is directed to be passed up between the Pubes and hind-head, in order to bring down the last below the *Syphysis Pubis*.—This it will often effectually do, but notwithstanding its seeming simplicity, *its use may be attended with the utmost danger*; for, as the *Syphysis Pubis* is the centre from which it acts, and the resting point upon which the whole stress is laid; whenever much force is there applied (action and re-action being the same) the *Vagina, and neck of the Bladder*, may be so violently bruised, as to occasion *mortification*, or even the very *Syphysis Pubis* might give way to such extreme pressure.

To remedy this inconvenience, which is the principal objection to the *Lever*, I have, for many years past, recommended an *Instrument consisting of three Blades*, being, in fact, a pair of *long Forceps with a double curve*, and the addition of a *Lever*, which has this peculiar advantage, that it may *always be applied without hurting the Mother*; for here, the *fulcrum of the Lever is removed from the Pubes to the junction of the blades*, by means of a *small Pivot, or central Pin*, placed at the under side of the lower Blade.

After the introduction of the two blades at the sides of the Child's head, and tying their handles firmly together; this *Lever* is

is to be passed up between the hind-head and Pubes ; and as the *Pelvis* there forms an arch, and is also *extremely shallow* ; by inclining the handles towards the *Perinæum*, it may be introduced without the least degree of violence or difficulty.—This being done, and the hole in centre of the *Lever* fixed upon the *Pivot*, the Operator may then press the handle of the *Lever*, against the other two tied together, with sufficient force to bring down the head, below the *Pubes* ; it may then be left to Nature, if the pains are strong ; if not, the *Lever* being removed, it may be easily extracted by the *Forceps*.

This additional *Blade* thus applied immediately to the *Occiput*, or resisting Point at the *Pubes*, will not only effectually shorten the head, and detach it from the place of its obstruction, but also prevent the *Forceps* from slipping ; for should they tend down towards the face, the *Lever*, which is fixed behind the head, and sustained by the blades must necessarily be drawn down with them ; consequently, the head also will be brought still more into the center of the *Pelvis*, and more easily extracted ; which may be better understood, by referring to the *third figure in the Copper-plate*.

The *Blades* of these *Forceps* are broad at their extremities where they grasp the head, and being reflected towards the *Pubes* with a *curvilinear*

curvilinear sweep, they not only correspond more aptly with the direction of the bony passage, than the common short ones; but also take a much more firm and extensive hold of the hind-head, where it is solid, and rests at the brim: Besides, as their compressive force on the head is more uniform, there will be less danger of lacerating the Perinæum: They will also be less liable to hurt the Patient, for, they lock at a greater distance from the Os Externum; neither will they keep this part so violently distended, for the blades near their junction, are much closer together than in the common Forceps;—the distance in the first being only two inches from blade to blade, but in the last, three inches and a quarter.

The curve of the blades from their junction to their extremities, in length, is seven inches and an half, in the whole thirteen inches; so that independent of the Lever, and admitting they are used alone, considering their length and effect of their double curve, they will in all cases be found preferable to the common short Forceps, with a single Curve. But notwithstanding the prevalence of novelty in most matters; new truths are sometimes hardly sufficient to combat old errors, so difficult is it to divest the mind of habit and early prejudice.—That the ignorant should not be able to comprehend, is not more to be wondered at, than that the blind should mistake his way; but there is less excuse for those who pretend

candor and discernment, yet obstinately shut their eyes on conviction.

The Lever is about twelve inches and a half in length, and in its outside centre, which should be made with a PROJECTING ANGLE, to give it greater power of action, are *two small holes* for the reception of the *Pivot* on the lower blade, with a superficial groove between these holes to allow of its being passed higher or lower, as occasion may require.

In short, *these two mechanical powers of the Forceps and Lever thus combined, will mutually assist each other*;—for the Lever will not only *prevent the Forceps from slipping*, but also *shorten the head*, and bring it down below the arch of the Pubes into the centre of the Pelvis. On the other hand, the Forceps will afford a firm resting point to the Lever, from which it may effectually act *without injury to the Patient*, which was the only objection to its use; so that we have the *advantages of both Instruments, without the defects of either.*

To those who have seen the *Instrument*, and its application, this description would, perhaps, have been sufficiently plain and obvious; but lest it should be imperfectly understood by others, I have added *two Copper-plate Prints* to represent it more clearly, being desirous of making it useful to the utmost of my power.

POSTSCRIPT.

POSTSCRIPT.

Several of these Forceps having been made in a bungling, immechanical manner, and very unlike the original pair, from whence the annexed print is taken; Gentlemen of the Profession are requested to direct the Instrument-maker to be particularly careful on that account, and order them to be made of tempered steel instead of iron case-hardened which will bend and defeat the purpose of their application.— The Lever should be made more straight, and its angle where the two holes are, should be more projecting; these holes have also been made too deep, and the Pivot at the junction of the blades is generally too short, which prevents the Lever from having sufficient power of action:

The blades of the Forceps have hitherto been made too short and slender; they have also wanted more breadth at their points, and depth in the Curve, from the middle of the blades to the extremity, where they grasp the head. The blades, when locked, should almost touch at their points, and only be covered with Leather high as their fork.—The Pivot in length should be nearly half an inch.

LONDON,
Craven-Street, Strand,
Jan. 15, 1786.

SUPPLE-

EXTRACT of a LETTER from Mons.

D. H. Gallandat, Professor of Anatomy, Surgery, and Midwifery, at FLUSHING, to Dr. Leake, relative to his New Forceps.

Monsieur,

Monsieur JOHN LEAKE, Membre du Collège Royal des Médecins de Londres, &c. à Londres.

JE me flatte que vous excuserez l'importunité d'une personne qui, ainsi que vous Monsieur, consacre son tems et ses forces à l'exercice de fonctions dans lesquelles il ne s'agit pas moins que de veiller à la conversation de nos semblables. Oui, Monsieur, j'ose m'assurer que vous ne prendrez pas mon hardiesse de mauvaise part puisque c'est la réputation distinguée dont vous jouissez à si just titre qui y donne occasion. Voici de quoi il s'agit : j'ai lu avec un singulier plaisir le discours préliminaire que vous avez prononcé le 4 d'Octobre dernier, à l'ouverture de vôtre, Cours d'Accouchemens, à la fin duquel j'ai vu avec la plus grande satisfaction la description & la figure d'un nouveau Forceps à trois branches, de votre invention ; et comme il me paroit que cette troisième branche peut être fort utile dans certain cas, j'ai d'abord pris la résolution de me procurer cet Instrument, tant pour en faire l'essai que pour le montrer dans mes cours publics ; mais attendu l'ignorance de nos couteliers,

ers, et la difficulté qu'il y a pour leur faire suivre exactement le dessein, j'ai cru que le plus court et le plus sur seroit de m'addresser directement à l'Auteur. Je vous pre donc, Monsieur, d'avoir la bonté de faire faire le dit Forceps selon la description que vous en avez donnée, & de me le faire parvenir par celui qui aura l'honneur de vous remettre cette lettere & qui aura soin de payer l'instrument. Vou m'obligeriez infiniment et vous me rendrez un service qui méritera toute ma reconnoissance.

Je vous prie d'agréer mes offres de service dans ce pays ci où je vou drois être en état de vous prouver les sentimens de la parfaite estime et de la considération distinguée avec laquelle j'ai l'honneur d'être.

MONSIEUR,
Votre très humble & très
Obeissant Serviteur,
DAVID HENRY GALLANDAT.

*Membre de l' acad. imp. des
curieux de la nature, tré-
sorier de la société Zelandoise
des sciences; démonstrateur
d'anatomie, de chirurgie,
& de l'art de accouchemens,
à Flessingue.*

*Flessingue en Zélande
ce 10 Aout 1774.*

C'est mon addressé, en cas que vous ayez la bonte de m'honorer d'une reponse, ce qui me seroit un sensible plaisir.

SIR,

Flushing, in Zealand, Aug. 10. 1774.

SIR,

I FLATTER myself you will excuse the importunity of a person who, like yourself, Sir, devotes both his time and abilities to the exercise of duties, the object of which is of no less importance than the preservation of our fellow creatures. Yes, Sir, I dare say you will not be offended at the liberty I have taken, since the distinguished reputation yo so deservedly enjoy has been the occasion of it. Here follows the matter in question. *I have read with singular pleasure the introductory Lecture which you gave on the 4th of October last, at the opening of your Course of Midwifery; annexed to it I have seen, with the greatest satisfaction, the figure and description of a new Pair of Forceps with three Blades, of your invention; and as it appears to me, that that third Blade may be very useful in particular Cases, I was directly determined to get that Instrument, with intention not only to make trials of it, but to shew it at my public Lectures; however, the ignorance of our Cutlers, and the difficulty there is to make them take an exact Copy of the Model, induces me to think it the shortest and best way to apply directly to the Inventor. I shall, then, be much obliged to you, Sir, if you will be so good as to get me a Pair made according to the de-*

scription you have given of them, and send them me by the person who will have the honor to present you this Letter, and pay for the Instrument. In doing this, you will render me a service which will put me under an infinite obligation.

Accept, I beg, my offers of service in this Country, where I should be very happy to have it in my power to shew you the sense of that perfect esteem, and distinguished consideration, with which I have the honor to be,

S I R,

Your most humble,

and most obedient Servant,

D. H. GALLANDAT,

Member of the Imperial Academy of Natural Philosophy, and Treasurer of the Zealand Society of Sciences; Demonstrator of Anatomy, Surgery, and Midwifery.

I was

I was honoured with the following Letter in the English Language, from M. Chauffier, Surgeon, at Dyon in France.

Dyon, Burgundy, Jan. 11, 1776.

DEAR SIR,

WITH great Pleasure I received your very obliging Letter, and to you my true thanks are due.

By means of our French Ambassador I send you my Friend's Book on *Uterine Hæmorrhages*: The Author, at page 171, has mentioned the Translation of your excellent Work, and exactly repeated your own words on *Ligatures*, and *astringent Medicines*; and also at page 181, where he laments that your ingenious Observations were not sooner known.

At present, I prepare my Translation to be printed speedily, but should be glad to know, where there is a *new* and enlarged Edition of your Book, as I see indicated by the English Catalogue.

I have also the Description and Use of your *new Forceps*, which I purpose to add to your *Practical Observations*.

My Friend, *Mr. Leroux*, presents to you his Salutation, and shall be happy to find his Book worthy of your approbation.—If I can render you

you services in this Kingdom, I beg you to command me, and allow the high respect with which I am,

DEAR SIR,

Your most obliged and obedient Servant,

F. CHAUSSIER.

*Extracts of Letters from C. M. THODE, Esq.
Surgeon to the Empress of Russia, and Coun-
cellor at the Court of Petersburg, to Dr.
Leake, on the Subject of his New Forceps,
translated from the German Originals in his
Possession.*

SIR,

Petersburg, May 6, 1776.

THE esteem I have always entertained for your person and abilities, and the gratitude I owe you, require, before every thing, that I return you my humble and sincere thanks for all the favors received of you during my stay in *London*, when I had the pleasure of attending your public *Lectures*, as well as the *Westminster Lying-in Hospital*, under your direction; and also for the honor you have done me since my absence, by sending me your *new-invented Forceps with three blades*.

I must

I must confess, Sir, when first you shewed me the Model of those *Forceps*, the invention appeared more curious than materially useful: I considered it as a complex Instrument, the application of which, for that reason, might be liable to difficulties.

These were my sentiments when I received this Instrument, and until I experienced it's utility, in two cases, where, I am sure, without the assistance of the *third blade*, it would have been impossible for me to deliver the mother.

In the first case, the patient was a healthy, strong young woman, who, on former occasions, had easy labours; yet, here it so happened, that after the discharge of the waters, the child's head remained firmly wedged within the Pelvis. In this situation the woman had been in strong labor during three days; and when I was called, on enquiry, I found her pains ceased for near twenty-four hours: She was extremely weak and exhausted. It was not without great trouble I discovered that the back part of the head had been forced over the *Offa Pubis*. All my endeavours to bring it into a more favourable position proved ineffectual; the *use of Smellie's Forceps also proved unsuccessful*.

Here, Sir, for the first time, I experienced the great excellence of your *New Forceps*, and that nothing could equal the utility of their *third Blade*, or Lever.

In

In the second Case, the axis of the Head was in a similar situation, only with this difference; that the Fore-Head was forced over the Bones of the Pubes. In the first Case, by means of your Forceps, *I was enabled to save the Mother*, and in the second, *both the Mother and Child*; for which reason I cannot help being very much pleased with your invention.

Knowing, Sir, your Candor and Indulgence I flatter myself with hopes, that you will not take amiss what I have here mentioned, regarding the prejudices I at first conceived of your New Instrument, since I now willingly confess I was then very much mistaken. This is often the case, when we trust to Opinion only.

Prompted by Humanity, you have, by means of this *New Instrument*, endeavoured to *save the life of the Child*, where others have not scrupled to destroy it, as a thing unavoidably necessary. How beneficial would it be to Society, if every one would follow your example; and if *Prejudice, Ignorance, and Vanity* would no longer hinder some men of the Profession from examining with impartiality or attention whatever is *new and useful*?

But what do you think of those who endeavour to persuade the Public of their abilities to deliver Women in all Cases of Midwifery, without the assistance of any instrument whatsoever? Not to mention several particular Cases,

ses where all Authors agree, that instruments are indispensably necessary ; I am of opinion, that even the most natural case, under certain circumstances, as *Floodings*, &c. may require their Use ; particularly the *Forceps*. Of this I am fully convinced, by a Case which lately occurred to me : It was in a strong young Woman, with a well formed Pelvis, in her first Lying-in. The Patient's strength was so totally exhausted, by being put too early upon Labor by an ignorant Midwife, that although the Child's Head was considerably advanced, the pains were insufficient to terminate the Labor. I found the Patient motionless, and almost dead, her extremities being cold, even near her body, with hardly any pulse or respiration. I was under the necessity of using the Forceps ; but notwithstanding I delivered the Patient in a few minutes, she died soon after.

Is not this a proof that even the most natural Cases, where the strength is exhausted, sometimes require instruments ; and if so, how much more requisite will be their use in deformed Persons, where there must be still greater difficulty ?

I cannot conclude without sending you a very particular case, which I believe deserves attention, as I do not remember any Author who has mentioned that operation which I practised with success.

By the Case I here inclose, together with three accurate Drawings, of which, Sir, I beg
your

your acceptance, you will perceive that the head of a big child was torn from the body, and left behind in a narrow and distorted pelvis : two skilful Accoucheurs had already laboured in vain for several hours to extract it.

When I was called for assistance, the *Cæsarian Operation* was proposed ; but, by a successful attempt with an instrument, in the manner mentioned in the Case, and the *figure of which I here send you*, I brought the head away, and delivered the patient in a few minutes.

I should be extremely glad to be favoured with your opinion of the different Cases I have here inclosed, and am, with great esteem,

SIR,

Your most obedient Servant,

C. M. THODE.

Holland, Hague, Nov. 12, 1776.

SIR,

I Do not doubt but you will be much surprised to hear I am so near, and that in a few weeks I hope to have the pleasure of seeing you in *London*. At *Leiden* I had the satisfaction of being in company with *Dr. Brand*, a very able and experienced *Accoucheur*, much esteemed by all the Professors of that University.

sity. Among other things, your *new-invented Forceps* became the subject of conversation. He told me he had not yet seen that instrument, but had heard much of it, and that *several Cases had occurred to him, where he had been obliged to use a third blade taken from another instrument, in the manner of your Lever*; and that he particularly remembered *two instances* where he had been successful, and was able to accomplish what, *without such a third blade would have been utterly impossible*.

In one of these Cases, indeed, he caused a depression of the bones of the head, which, notwithstanding all his endeavours, he could not raise, but which, in a few days, disappeared of itself, and the Child was then alive and well.

He wishes to have a Pair of your new Forceps and much approves your invention of adding a third blade. I hope to find you well on my arrival in *London*, and remain, with the utmost respect,

S I R,

Your most humble Servant,

C. M. THODE.

††† *Dr Leake is informed by Dr. Wendenberg of Stockholm, that the Description of his New Forceps is translated by Dr. Kronits, Physician at Berlin.*

DEAR

Thetford, Norfolk, Aug. 7, 1781.

DEAR SIR,

I FLATTER myself, the following Case will afford you some pleasure, as my success in the treatment of it I attribute solely to the knowledge which I acquired from your ingenious Lectures, and my attendance at the Westminster Lying-in-Hospital, under your Direction.

I am, DEAR SIR,

With the utmost respect,

Your most obedient Servant,

WILLIAM ROBERT MINGAY.

LABORIOUS CASE.

Mr. S. of B. came to my house (about five weeks ago), in great haste, and desired I would visit his wife as soon as possible ; he informed me that she had been in *strong labor for forty-eight hours*, attended by a Midwife, and for the last twelve hours by an *experienced Accoucheur* ; that his wife (when he left her) was extremely ill, and that her friends expected every moment would put a period to her life. Her strength was quite exhausted, from having been so long in labor, without the least rest ; neither

neither had she any pains for the last ten hours. Her pulse was feeble, and she was scarce able to speak. On examination, I found the soft parts sufficiently dilated, but that the child's head was firmly wedged in the Pelvis ; the occiput projected considerably over the pubes, the head was large and solid, and the pelvis narrow and distorted. Considering the preceding circumstances, I acquainted her attendants, that I was fearful of the event, but that the only chance she had for her life was to be delivered as soon as possible. Her Accouchant proposed the immediate perforation of the child's head, as the short Forceps had proved unsuccessful, and thought there were no other means to save his patient.—I informed him, as we were not certain the child was dead, I wished to make use of *Dr Leake's Forceps*, before I could, with an easy conscience, consent to open the head. He readily agreed, although he had never seen their use before. Having cheered up my patient, by telling her I was in hopes of saving both her and her infant, I emptied the contents of the rectum and bladder, then placing her in a proper position, and having her well supported, I passed a Blade of your Forceps along the left side of the child's head, and the other along the opposite side ; after locking them together, I attempted to make a gentle extraction, but was defeated ; for I perceived, that the compression of the Blades on each side of the head, as you have observed in such

such cased, rendered the difficulty still greater, by forcing the *Occiput* farther over the *Pubes*, and the forehead against the *Sacrum*; I, therefore, had recourse to your *Lever* (or third Blade), which I was able to introduce with ease, between the *Occiput* and *Pubes*, by inclining the handle towards the *perinæum*. Having fixed it properly, I made a gentle compression, and extracted the head without violence, at the first effort, and delivered my patient in about ten minutes, of a fine, living *Child*, to the great satisfaction of those present. My patient recovered, and is now in perfect health.



THE END.